

WPS-PLUS/PC

Editor Functions

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About This Guide

PRODUCT NAME: WPS-PLUS/PC Version 1.0

Purpose of This Guide

WPS-PLUS/PC Editor Functions describes all the word processing functions in the WPS-PLUS Editor. Appendix B provides a summary of WPS-PLUS editor functions.

Audience

This manual is for WPS-PLUS users who know the basics of WPS-PLUS word processing.

Prerequisites

Before using this manual, you should be familiar with the following materials:

- *WPS-PLUS/PC Installation and Printer Tables*
- *WPS-PLUS/PC Getting Started*
- *WPS-PLUS on PC*

Associated Documents

This manual, together with the following documents, makes up the WPS-PLUS/PC V1.0 documentation set. This set provides detailed instructions on how to use WPS-PLUS to perform word processing tasks.

- *WPS-PLUS/PC Installation and Printer Tables*
- *WPS-PLUS/PC Getting Started*
- *WPS-PLUS on PC*
- *WPS-PLUS/PC List and Sort Processing*
- *WPS-PLUS/PC Quick Lookup*
- *WPS-PLUS Glossary*

Conventions

ALL CAPS	Identifies a WPS-PLUS editor function. For example: Press ADVANCE PARA means to press the ADVANCE key, then the PARA key. Refer to Figure 1-1 for the location of the editor functions on your keyboard.
ALT/x	Means press the ALT key while you press the designated function key. For example: Press ALT/INTERRUPT.
CTRL/x	Means press the CTRL key while you press the designated letter key. For example: Press CTRL/W.
Dot Matrix	Indicates text that appears on your screen.
Enter	Means type your response, then press RETURN.
Gold x	Means press the Gold key, labeled NUM LOCK on your keyboard, then a function key. For example: Press Gold FILE DOCMT.
Red Print	Shows characters you type or sample responses to prompts.
SHIFT/x	Means press the SHIFT key while you press the designated function key. For example: Press SHIFT/PASTE.
WPS-PLUS	Means WPS-PLUS/PC.

Introduction to Editor Functions

This manual explains how to use the WPS-PLUS Editor. With the WPS-PLUS Editor, you can:

- Enter text, format it properly, and save or delete your edits
- Indent text and set margins by inserting rulers in your document and changing ruler settings
- Remove text from a document with the select and cut functions, or reinsert it with the paste function
- Highlight text by capitalizing, bolding, underlining, or centering
- Search a document for text you identify, and replace it using the search-and-replace function
- Insert hyphens to divide compound words
- Store frequently used text in special library and abbreviation documents that can be inserted into other documents when needed
- Create and use composite, multinational, and technical characters
- Subscript and superscript characters

- Insert headers and footers containing page numbers and text
- Format text for printing in columns
- Use Editor Math to solve mathematical equations
- Paginate a document manually or automatically
- Use the Two-Dimensional Editor to draw diagrams, integrate text and graphics, or construct complex equations

To access the editor:

Create or edit a document.

See *WPS-PLUS Getting Started* for information about creating a document, and about using documents you have created or edited.

Figure 1-1 shows the WPS-PLUS editor functions on the PC keyboard.

Appendix B provides a summary of the WPS-PLUS editor functions. Use Appendix B and the index to find information about any WPS-PLUS editor function.

Initial Display

After you create a document, you see the initial display in the editor. The display consists of a TOP marker and a ruler. For example:

```
----- TOP -----  
L-----T-----T-----T-----T-----T-----T-----R-
```

When you create a new document, the document uses the standard ruler by default to set margins and tabs. For information about rulers, see Chapter 3.

Entering Text

When you start typing text, the cursor is on the line below the ruler. As you type, the cursor moves right. Inserting a new character causes any characters at or past the cursor to move right.

To add text to an existing document:

- 1 Move the cursor to the location for the new text.
- 2 Type the text.

WPS-PLUS wraps the text when you type a word beyond the right margin. Press the RETURN key once to begin a new line. Press the RETURN key twice to begin a new paragraph.

For information about moving the cursor in a document, see Chapter 2.

Correcting Text

To change characters or words:

- 1 Move the cursor to the start of the incorrect text.
 - 2 Delete characters or words by pressing SHIFT/DEL CHAR or DEL WORD.
 - 3 Type the correct text.
- OR
- 1 Move the cursor to the end of the incorrect text.
 - 2 Press RUB CHAR OUT, ALT/RUB WORD OUT, Gold RUB LINE, or Gold ALT/RUB SENT.
 - 3 Type the correct text.

To restore text accidentally deleted by pressing a delete or rubout key:

Press Gold DEL WORD immediately.

Only the text most recently removed is inserted at the cursor.

To transpose two characters:

- 1 Move the cursor to the first of the two characters to be transposed.
- 2 Press Gold SWAP.

Wrapping Text

When you type a word beyond the right margin, WPS-PLUS wraps your text. This means that WPS-PLUS moves the last word you typed to the next line.

When you insert more text, or change a ruler within a document, you should rewrap the text yourself by scrolling through the document. If you do not rewrap the text, your document may not print correctly.

WPS-PLUS rewraps the text according to your ruler settings. See Chapter 3 for more information on rulers.

To rewrap text:

- 1 Move the cursor to the start of the text you want to rewrap.
- 2 Press ADVANCE.
- 3 Press the appropriate distance key, such as SENT or PARA, until the cursor reaches the end of the text, or the next ruler.

To rewrap an entire document:

- 1 Move the cursor to the start of the text you want to rewrap.
- 2 Press Gold ADVANCE.

When you rewrap text in these ways, WPS-PLUS does not wrap text that contains carriage returns. In other words, if you have pressed RETURN at the end of a line, WPS-PLUS recognizes that carriage return and does not wrap the following text. However, you can rewrap text that contains carriage returns by using Gold PARA.

To rewrap a paragraph containing carriage returns:

- 1 Position the cursor anywhere in the paragraph.
- 2 Press Gold PARA.

WPS-PLUS rewraps the text and converts carriage returns to spaces.

To rewrap more than one paragraph:

- 1 Move the cursor to the start of the text you want to rewrap.
- 2 Press SEL.
- 3 Move the cursor to the end of the text you want to rewrap.
- 4 Press Gold PARA.

WPS-PLUS rewraps the text in each paragraph but leaves the paragraph breaks.

Entering the Date and Time

To insert the DATE & TIME stamp at the cursor position:

Press Gold DATE & TIME.

You determine the format of the DATE & TIME stamp at installation. For example:

10-Jun-1985 15:22

Checking Document Status

To check the page number, line number, and title of the document you are editing:

Press Gold STATUS.

A status line appears at the bottom of the screen with the required information. Press any key to continue editing.

Ending a WPS-PLUS Editing Session

You end a WPS-PLUS editing session when you file your document and save your edits, or file your document and delete your edits.

Saving Your Edits

Generally, you will want to keep the edits you make to a document.

To save your edits:

Press Gold FILE DOCMT.

When you file a document, you delete any earlier version of the document. If you need to keep your original version (without edits), use Gold GET DOCMT to make a copy of the document before you begin editing. For more information on Gold GET DOCMT, see Chapter 4.

Deleting Your Edits

If you do not want to save the changes you made to a document, you can remove them before you file the document.

To delete your edits:

- 1 Press Gold QUIT.

A prompt asks if you really want to end the session without saving your edits.

- 2 Enter Y.

WPS-PLUS deletes all text you typed and changes you made in the current editing session.

If you decide not to delete your edits, enter N at the prompt.

If you press Gold QUIT after creating a new document, WPS-PLUS saves the document title in your index. You can edit the document later without filling out the Create form again.

2

Moving the Cursor

This chapter explains how to move the cursor in a document with:

- ADVANCE and BACK UP
- Distance keys
- Arrow keys
- Gold key functions

Moving Short Distances

To move the cursor forward one character:

Press ADVANCE or the Right Arrow key.

To move the cursor backward one character:

Press BACK UP or the Left Arrow key.

To move the cursor to the same position on the previous line:

Press the Up Arrow key.

To move the cursor to the same position on the next line:

Press the Down Arrow key.

Moving Long Distances

To move the cursor more than one character:

- 1 Press ADVANCE or BACK UP to tell WPS-PLUS which direction to move the cursor.
- 2 Press a distance key to indicate how far to move the cursor. See Table 2-1 for information about distance keys.

OR

Hold down ADVANCE or BACK UP to move the cursor repeatedly.

NOTE: Do not use RETURN to move the cursor. RETURN inserts a carriage return in your document.

The cursor direction automatically switches to advance when:

- You press any key other than a distance key, an arrow key, or BACK UP
- The cursor reaches the top of the document

See the section Gold Key Functions for information on moving the cursor quickly through a document.

Distance Keys

Distance keys move the cursor forward or backward the distance specified by the name of the key. (The ENTER key moves the cursor to the next or previous right angle bracket.) Table 2-1 shows the WPS-PLUS distance keys and how far each key moves the cursor.

Table 2-1 Distance Keys

Press	To
LINE	Move to the next or previous line. A line is the text displayed between the left and right margins.
SHIFT/PAGE	Move to the next or previous page-end mark (PAGE MARKER or NEW PAGE mark). If there are no page-end marks, the cursor goes without stopping to the bottom or top of the document.
PARA	Move to the next or previous paragraph. Two RETURNS or a paragraph marker mark the beginning of a paragraph. The cursor also stops at page-end marks.
SENT	Move to the next or previous sentence. A period, question mark, or exclamation point marks the end of a sentence. The cursor also stops at page-end marks and RETURNS.
TAB POS	Move to the next or previous tab position. If there are no tab positions in the ruler between the cursor and the end of the line, the cursor moves to the start of the next or previous line.
WORD	Move to the next or previous word.
ENTER	Move to the next or previous right angle bracket (>). Use this symbol as a “bookmark” to find particular sections of a large document.
PREV SCREEN	Move to the previous screen display.
NEXT SCREEN	Move to the next screen display.

Gold Key Functions

You can also move the cursor forward and backward by using Gold key functions. Table 2-2 shows the Gold key functions and how far each key moves the cursor.

Table 2-2 Gold Key Functions for Moving the Cursor

Press	To
Gold Right Arrow	Move to the end of the current line.
Gold Left Arrow	Move to the start of the current line.
Gold TOP DOCMT	Move directly to the start of the document.
Gold BOT DOCMT	Move directly to the end of the document.
Gold ADVANCE	Move forward to the end of the document. Text scrolls up the screen.
Gold Down Arrow	Same as Gold ADVANCE.
Gold BACK UP	Move backward to the start of the document. Text scrolls down the screen.
Gold Up Arrow	Same as Gold BACK UP.

Stopping the Cursor

You can stop the cursor during most operations by pressing ALT/INTERRUPT.

This chapter explains how to:

- Display and change a ruler
- Set left and right margins, tab positions, indentation points, and centering points
- Use wide rulers
- Store and recall a ruler
- Go to the next or previous ruler

What Is a Ruler?

A ruler appears as a horizontal line of dashes and characters. Each character in a ruler indicates a ruler setting, such as a margin, tab, indentation point, centering point, and hyphenation zone for a document.

Here is a sample ruler:

L-----T-----R

In the sample ruler, L indicates the left margin, T indicates a tab position, and R indicates the right margin. See Table 3-1 for a list of ruler settings.

You can place any number of rulers in a document, and change rulers whenever you need new ruler settings. A ruler remains in effect until the next ruler or the end of the document. Rulers do not appear in the printed document.

You must use rulers that are compatible with your printer. For example, do not specify margins wider than your printer is able to print. Consult the Software Product Description for more information.

Displaying a Ruler

To view the current ruler settings anywhere in a document:

Press Gold RULER.

The text moves up, and a ruler appears at the cursor.

For example:

..... 1 2 3 4 5 6 7
L T T T T T T R

Moving the Cursor in a Ruler

In a displayed ruler, use:

- ADVANCE or the Right Arrow key to move the cursor one space to the right
- BACK UP or the Left Arrow key to move the cursor one space to the left
- WORD or BACK UP WORD to move the cursor to the next or previous setting in the ruler
- LINE to move the cursor to the far-right column on the screen
- BACK UP LINE to move the cursor to column 1

Changing a Ruler

If you want to change the formatting of your document, you can add a new ruler setting.

To add a ruler setting:

- 1 Move the cursor to the left margin of the first line you want to format.
- 2 Press Gold RULER to display the ruler.
- 3 Move the cursor to where you want the new setting.
- 4 Type the character for the new setting.

The character you type is displayed in the ruler.

- 5 Press RETURN to embed the ruler.

The normal display returns, and the ruler you have added remains displayed in your document.

Once you have added a ruler setting, advance the cursor so WPS-PLUS rewraps text to match the new ruler. See the section Go-to-Ruler and Chapter 1 for information on rewrapping text.

To resume editing without embedding the new ruler:

Press Gold RULER.

To remove a ruler setting:

- 1 Move the cursor to the left margin of the first line you want the new ruler to format.
- 2 Press Gold RULER to display the ruler.
- 3 Move the cursor to the setting you want to remove.
- 4 Press the space bar.

The old setting is deleted.

NOTE: Do not remove the *R* or *J* setting from a ruler unless you want a no-wrap ruler. See the section No-Wrap Rulers.

To move any ruler setting except a tab position character:

- 1 Move the cursor to the column where the new setting should go.
- 2 Type the character for that setting.

WPS-PLUS removes the old setting when you type the new one.

To move a tab position:

- 1 Remove the old tab setting.
- 2 Add the new tab setting.

To recall your original ruler (the ruler displayed when you pressed Gold RULER) while the ruler is displayed:

Press the equals (=) key.

Deleting a Ruler

To delete a ruler:

- 1 Move the cursor to the line below the ruler.
- 2 Press Gold RULER.
- 3 Press DEL WORD.
- 4 Press RETURN to resume editing.

WPS-PLUS changes the ruler to match the ruler above it, and the ruler disappears. If necessary, rewrap the following lines to the next ruler or to the end of the document.

To restore a ruler you have just deleted:

Press Gold DEL WORD or the equals (=) key before pressing RETURN.

You cannot restore the ruler after you press RETURN.

Left Margin (L, N, D, F)

Each ruler can contain only one left-margin character (L, N, D, F).

To change the left margin:

Embed an L, N, D, or F in the ruler.

WPS-PLUS removes any L, N, D, or F setting already in the ruler.

A typical ruler with left margin in column 1 and right margin in column 60 looks like this:

L-----R

In addition to defining the left margin, the left-margin character indicates the amount of vertical spacing between lines. The left-margin characters define line spacing as follows:

L	Single spacing
N	Line-and-a-half spacing
D	Double spacing
F	Half-line spacing

The line spacing created by the left-margin character in a ruler shows up in the printed copy of the document. You do not see it when you are editing.

Right Margin (R, J)

Each ruler can contain only one right-margin character (R or J), unless it is a no-wrap ruler. See the section No-Wrap Rulers. If you type past the right-margin character, WPS-PLUS wraps the word to the next line.

To set the right margin:

Embed an R or a J in the ruler.

R in the ruler means ragged-right margin. The R tells WPS-PLUS to position the words on the paper as they appear on the terminal screen. Lines are left-justified only.

J in the ruler means right-justified margin. The J tells WPS-PLUS to align the printed text on both the left and right sides, so that all line endings are even. Line endings of displayed text are uneven.

Tabs

To change tab settings for a document or a portion of a document:

- 1 Embed the new tab positions in a ruler.
- 2 Advance the cursor through the text to move text to the new tab positions.

TAB and TAB POS Keys

Two keys are used in conjunction with tab positions in a ruler:

- The TAB key moves the cursor and any text following it to the next tab position. The TAB mark (visible only in view mode) stays in the document until you remove it. See Chapter 11 for information on view mode.
- The TAB POS key advances the cursor to the next tab position. Unlike the TAB key, the TAB POS key does not move text.

Tab Settings

A ruler can contain three types of tab settings, as shown in Figure 3-1.

Left- Justified	Right- Justified	Decimal- Aligned
-----T----->-----,		
Price	\$30	1.065
Number Three	\$104	9.38
New Method	\$2,207	16
Incremental Cost	\$9	0.082
Compound C	\$11	.31

Figure 3-1 Examples of Tabs

Left-Justified Tab (T). To align text on the left:

- 1 Embed a T in the ruler where you want text to be aligned.
- 2 Tab to the left-justified tab position.
- 3 Type text.

WPS-PLUS displays the text starting at the tab position and continuing to the right. See Figure 3-1.

Right-Justified Tab (>). To align text, such as columns of whole numbers, on the right:

- 1 Embed a right angle bracket (>) in the ruler where you want text to be aligned.
- 2 Tab to the right-justified tab position.
- 3 Type text.

WPS-PLUS displays the text starting at the tab position and continuing to the left. See Figure 3-1.

Decimal-Aligned Tab (.). To align the decimal points in a column of numbers:

- 1 Embed a decimal point (.) in the ruler where you want to align decimal points.
- 2 Tab to the decimal point.
- 3 Type the non-decimal part of the number.
Digits move left from the cursor as you type.
- 4 Type a decimal point.
WPS-PLUS displays the decimal point at the tab position.
- 5 Type the decimal digits.
Decimal digits move right from the cursor as you type.

See Figure 3-1 for an example of this setting. If the number you type does not contain a decimal point, columns are aligned on the right, as with a > in the ruler. See the numeral 16 in Figure 3-1.

Indents

You can indent text by embedding a paragraph indent (P) or a word-wrap indent (W) in a ruler. Generally these settings appear after the left-margin setting. However, if you embed a P or W setting before the left margin, the text moves to the left of the left-margin setting.

Paragraph Indent (P)

P in the ruler indicates a paragraph indent. For example:

L ---P-----R

To indent paragraphs:

- 1 Embed a P in the ruler where you want paragraphs to indent.
- 2 Press Gold PARA MARKER to begin each paragraph.

A P setting acts like a left-justified tab position. You can tab to a P using the TAB key.

A ruler can have only one P setting. If you type a second P into a ruler, WPS-PLUS removes the original P.

Word-Wrap Indent (W)

W in the ruler indicates a word-wrap indent. For example:

L ---W-----R

If the ruler contains a W, all text you type after the right margin is wrapped and indented to the W, unless you press RETURN. Word-wrap indents are therefore useful if you are creating lists or any text in which the indentation changes.

To insert a word-wrap indent in your ruler:

- 1 Press Gold RULER.
- 2 Embed a W in the ruler at the indent position you want.

A ruler can have only one W setting. If you type a second W in a ruler, WPS-PLUS removes the original W. You can tab to a W with the TAB key.

To create a list using a word-wrap indent:

- 1 Embed a W in a ruler before the first list item. Embed the W in the column where text in a list item should start.
- 2 Press RETURN.
The cursor moves to your left margin.
- 3 Type the number of the list item.
- 4 Tab to the column indicated by the W.
- 5 Type the text.
When the cursor passes the right margin, WPS-PLUS wraps text, moving the cursor to the next line and indenting to the W.
- 6 When the first list item is complete, repeat steps 2 through 5 until your list is complete.

Centering Point (C)

C in a ruler indicates a centering point other than midway between the left and right margins. For example:

L-----C-----R

Use Gold CENTR to center a line on a centering point in the ruler. If there is a C in the ruler, WPS-PLUS displays the same amount of text on either side of the C setting. If there is no C in the ruler, WPS-PLUS centers text halfway between the left and right margins.

To insert a centering point in a ruler:

Embed a C in the ruler.

To center a line:

Press Gold CENTR after a line of text.

A ruler can have only one C setting. If you type a second C into a ruler, WPS-PLUS removes the original C. For more information about centering, see Chapter 5.

Hyphenation Zone (H)

When you create a hyphenation zone near the right margin, WPS-PLUS sounds the beeper when it has wrapped a word that you might want to hyphenate. You can then hyphenate the word, if you like.

To create a hyphenation zone:

Embed an H in the ruler a few spaces from the right-margin character.

For example:

L-----H---R

The hyphenation zone is between H and R.

H cannot appear more than once in any ruler. If you type a second H in a ruler, WPS-PLUS removes the original H. For information on different forms of hyphenation, see Chapter 7.

Ruler-Setting Characters

Table 3-1 summarizes the ruler-setting characters.

Table 3-1 Ruler-Setting Characters

Left-Margin Characters

- | | |
|---|--|
| F | Defines a left margin, and prints text with half-line spacing. |
| L | Defines a left margin, and prints text single-spaced. |
| N | Defines a left margin, and prints text with line-and-a-half spacing. |
| D | Defines a left margin, and prints text double-spaced. |

Right-Margin Characters

- | | |
|---|--|
| R | Defines a ragged-right margin. Line endings of displayed and printed text are uneven. |
| J | Defines a right-justified margin. Text is blocked when printed. That is, all line endings are even. Line endings of displayed text are uneven. |

Tab-Position Characters

- | | |
|---|---|
| T | Defines a left-justified tab position, to align words in columns. |
| > | Defines a right-justified tab position, to align words or whole numbers on the right. |
| . | Defines a decimal-aligned tab position, to align decimal points in a column of numbers. |

Indenting Characters

- | | |
|---|---|
| P | Indents a paragraph after a paragraph marker. |
| W | Indents text after a word wrap. |

Other Characters

- | | |
|---|--|
| C | Defines a centering point other than midway between the left and right margins. Text before a centering mark is centered on the centering point. |
| H | Defines a hyphenation zone. Used in conjunction with the right-margin character (R or J) to determine which words should be hyphenated. Hyphenation produces a more even right margin. |
-

Wide Rulers

A wide ruler is a ruler in which the right margin is set past column 80. A document containing a wide ruler is called a wide document. WPS-PLUS can display and print wide documents with up to 158 characters on a line.

Creating a Wide Ruler

To create a wide ruler:

- 1 Press Gold RULER.
- 2 Press LINE to move the cursor to the end of the 80-column ruler.
- 3 Press ADVANCE or the Right Arrow key to display the next 28 columns in the ruler.
- 4 Repeat steps 2 and 3 until you reach the column where you want to insert a ruler setting.
- 5 Press RETURN to embed the wide ruler.

As you type past column 80, the text shifts horizontally to display the next 28 columns of text. Each time you type past the last column on the right, the text continues to shift until you reach column 158.

Printing a Wide Document

The maximum width of the ruler you can use depends on the type of printer and the horizontal pitch. Before you print any document, refer to Chapter 4 in *WPS-PLUS on PC*.

You may want to consider creating a separate document for text that uses a wide ruler. For example, if the document you are creating contains a chart that uses a wide ruler, create a document that contains only the chart. You can print the documents separately.

No-Wrap Rulers

With a no-wrap ruler, you can type up to 158 characters in a line without having the text wrap. A spreadsheet is an example of text that would use a no-wrap ruler.

To embed a no-wrap ruler in your document:

- 1 Press Gold RULER to display the current ruler.
- 2 Remove the right-margin setting (R or J).
- 3 Press RETURN.

Stored Rulers

You can store ruler settings under a number and recall them later. You can store as many as 9 rulers by using the number keys, 1 through 9, on the main keyboard.

You can also store a ruler under the number 0. This ruler is the default ruler, the ruler that appears at the top of any document you create. See the section *Storing Your Own Default Ruler*.

Using Stored Rulers

To store ruler settings:

- 1 Press Gold RULER.
- 2 Change ruler settings, if necessary.
- 3 Hold down SHIFT, then type a number key (0 through 9) to store the ruler under that number.
- 4 Press any key to continue.
- 5 Press RETURN to embed the ruler in the document.

Whether or not you embed the ruler, the ruler settings are stored under the number you specified.

NOTE: If you store ruler settings under a number you have previously used, the previous ruler settings are removed.

To display and embed a stored ruler anywhere in a document:

- 1 Press Gold RULER.
- 2 Type the number of the stored ruler.
- 3 Press RETURN.

Storing Your Own Default Ruler

When you create a new document, WPS-PLUS uses the ruler stored under key number 0 as the default ruler, the ruler that appears at the top of the document. If you find you do not use the default ruler settings, you can change the default ruler settings to those you use most often.

To change the default ruler:

- 1 Press Gold RULER.
- 2 Type the settings you want the default ruler to have.
- 3 Hold down SHIFT, then type 0 to store the ruler under that number.
- 4 Press any key to continue.
- 5 Press RETURN.

Go-to-Ruler

There are two ways to go to the next or previous ruler.

Method 1:

- 1 Press Gold SRCH.
- 2 Press Gold RULER.
- 3 Press ADVANCE to go to the next ruler.

OR

Press BACK UP to go to the previous ruler.

Method 2:

- 1 Press Gold RULER.
- 2 Press Gold ADVANCE to go to the next ruler.

OR

Press Gold BACK UP to go to the previous ruler.

When you change ruler settings, the text following the new ruler must be rewrapped to match the new ruler settings. Therefore, you can use go-to-ruler when you change rulers in a long document. For example:

- 1 Move the cursor to where you want to reformat text.
- 2 Press Gold RULER to display the ruler.
- 3 Change the ruler settings.
- 4 Press Gold ADVANCE to embed the new ruler, rewrap the following lines, and go to the next ruler.

4

Moving Text

This chapter explains how to:

- Select text
- Cut and paste text
- Replace text
- Transfer text between documents

Selecting Text

The select function inserts a select mark (◆) at the cursor. As you move the cursor, WPS-PLUS selects text between the cursor and the select mark for use in cut, paste, or replace operations. You can select text as you type it, or select existing text.

To select text as you type it:

- 1 Press SEL.
- 2 Type the text.

To select existing text:

- 1 Move the cursor to the beginning of the text.
 - 2 Press SEL.
 - 3 Press the appropriate distance or arrow key.
- OR
- 1 Move the cursor to the end of the selected text.
 - 2 Press SEL.
 - 3 Press BACK UP and the appropriate distance or arrow key.

To erase a select mark:

Press SEL again.

Selected text can be:

- Highlighted (capitalized, bolded, underlined, or centered). See Chapter 5.
- Subscripted and superscripted. See Chapter 10.
- Cut into the WPS-PLUS paste area, to be pasted elsewhere in the document, pasted in a different document, or deleted. See the sections Cutting Text and Pasting Text.
- Substituted for specified phrases in a document. See the section Replacing Text.

Cutting Text

Use the cut function to delete text from a document. Use cut with the paste function to move text within a document or to insert text in a different document.

To cut text:

- 1 Select the text.
- 2 Press CUT.

The selected text is removed from the document and placed in the WPS-PLUS paste area.

If no text has been selected, the beeper sounds when you press CUT.

NOTE: The paste area can contain up to 150 lines of text.

To copy text into the WPS-PLUS paste area without removing the original text:

- 1 Select the text.
- 2 Press Gold CUT.

Both CUT and Gold CUT erase previously stored text from the WPS-PLUS paste area. You cannot restore erased text.

WPS-PLUS removes the select mark when you use CUT or Gold CUT, so there is no longer any selected text.

Pasting Text

Use the paste function to insert text from the WPS-PLUS paste area into the same document or into a different document. Text is inserted at the cursor.

To cut and paste text within a document:

- 1 Select the text.
- 2 Press CUT or Gold CUT.
- 3 Move the cursor to the point where you want to insert the text.
- 4 Press SHIFT/PASTE.

To cut and paste text with ruler settings:

- 1 Select the text.
- 2 Press CUT or Gold CUT.
- 3 Move the cursor to the new location.
- 4 Press Gold SHIFT/PASTE.

If the cut text has tabs or other special ruler settings, these are included when the text is pasted. WPS-PLUS restores the current ruler after the pasted text.

NOTE: If you paste text into the middle of a paragraph, rewrap the text.

Paste does not erase text in the WPS-PLUS paste area, so you can press SHIFT/PASTE, move the cursor, and press SHIFT/PASTE again. In this way, you can insert a copy of the same text elsewhere in the document as many times as needed. You can reuse the contents of the paste area until you cut other text, which replaces the contents of the paste area.

To move text from one document to another, see the section Transferring Text Between Documents. For text frequently inserted in many documents, use an abbreviation or library document. See Chapter 8.

Replacing Text

Use the replace function to replace selected text with text you have cut.

To replace text:

- 1 Select the new (replacement) text.
- 2 Press CUT.

The replacement text is moved into the WPS-PLUS paste area.

- 3 Select the text you want to replace.

4 Press Gold REPLC.

The selected text is replaced with the text in the WPS-PLUS paste area. If there is no selected text, the beeper sounds when you press Gold REPLC.

NOTE: Replaced text is not saved by WPS-PLUS; you cannot recover it.

See Chapter 6 for information about the search-and-replace function.

Transferring Text Between Documents

There are two ways to transfer text between WPS-PLUS documents:

- Cut and paste
- Gold GET DOCMT

Cutting and Pasting Text Between Documents

To cut and paste text between documents:

- 1 Select the text.
- 2 Press CUT or Gold CUT.
- 3 Press Gold FILE DOCMT.
- 4 Create or edit the second document.
- 5 Move the cursor to the point in the second document where you want to insert the text.
- 6 Press SHIFT/PASTE or Gold SHIFT/PASTE.
WPS-PLUS asks if you want to use the previous paste area.
- 7 Enter Y.

The text in the paste area appears at the cursor.

Gold GET DOCMT

Use the Gold GET DOCMT function to copy a document into the document you are working on. You can then cut any part of the text you do not want.

To copy a document into your current document:

- 1 Position the cursor where the document should be inserted.
- 2 Press Gold GET DOCMT.

The Gold Get form appears.

- 3 Enter the title of the document you want to copy.

WPS-PLUS copies the document into your current document. The cursor appears at the end of the copied text.

WPS-PLUS copies everything in the document you identify except PAGE MARKERS. NEW PAGE marks are copied.

To cancel a Gold GET DOCMT operation and resume editing:

Press ALT/INTERRUPT.

To preserve the current version of a document you need to edit:

- 1 Create an empty document with a different name from the current version.
- 2 Use Gold GET DOCMT to insert the current version of the document into the empty document.

Now when you edit the document, the edited version becomes the most recent version of the text, while the older version still exists under a different document name.

Gold GET DOCMT Restrictions

The document you specify on the Gold Get form must be a WPS-PLUS document. To copy an ASCII file or DX file, you must first convert that file using the conversion option at the Document Processing Menu. See *WPS-PLUS on PC* for more information about converting and transferring files.

Also, the document you specify must be stored on your fixed disk (fixed-disk systems) or on a diskette you have inserted in a disk drive (diskette-based systems). When you enter the name of the document on the Gold Get form, be sure to include the path name. For example, if the document titled May Report is stored on a diskette in Drive A, type:

A:MAY REPORT

See *WPS-PLUS Getting Started* for more information about path names.

5

Highlighting Text

This chapter explains how to highlight text by:

- Capitalizing
- Bolding
- Underlining
- Centering

You can highlight the same text in more than one way. See the section [Combining Highlighting Features](#).

Capitalizing Text

To capitalize existing text:

- 1 Move the cursor to the start of the text to be capitalized.
- 2 Press SEL.
- 3 Move the cursor to the end of the text to be capitalized.
- 4 Press UPPER CASE.

To capitalize text as you type:

Press CAPS LOCK, then type the text.

OR

Press SEL, type the text, then press UPPER CASE.

To remove capitalization:

- 1 Move the cursor to the start of the text where you want to remove capitalization.
- 2 Press SEL.
- 3 Move the cursor to the end of the capitalized text.
- 4 Press Gold UPPER CASE.

Bolding Text

Bolded text appears brighter on the screen than normal text. When bolded text is printed, each character appears twice as dark as normal.

To bold existing text:

- 1 Move the cursor to the start of the text to be bolded.
- 2 Press SEL.
- 3 Move the cursor to the end of the text to be bolded.
- 4 Press BOLD.

To bold text as you type:

- 1 Press SEL.
- 2 Type the text.
- 3 Press BOLD.

To remove bolding:

- 1 Move the cursor to the start of the text where you want to remove bolding.
- 2 Press SEL.
- 3 Move the cursor to the end of the bolded text.
- 4 Press Gold BOLD.

You can have bolded text print even darker by using shadow printing, provided you use the appropriate printer. (See Chapter 4 in *WPS-PLUS on PC* for more information on shadow printing.) If you want to use shadow printing, you must use it for all bolded text in your document.

Underlining Text

To underline existing text:

- 1 Move the cursor to the start of the text to be underlined.
- 2 Press SEL.
- 3 Move the cursor to the end of the text to be underlined.
- 4 Press UNDER LINE.

To underline text as you type:

- 1 Press SEL.
- 2 Type the text.
- 3 Press UNDER LINE.

When you underline text, WPS-PLUS underlines the spaces between words as well as the words themselves.

To underline only the words:

- 1 Move the cursor to the start of the text to be underlined.
- 2 Press UNDER LINE.
- 3 Press WORD repeatedly until the cursor is past the last word to be underlined.
- 4 Press ADVANCE to turn off the underline feature.

To remove underlining:

- 1 Move the cursor to the start of the text where you want to remove underlining.
- 2 Press SEL.
- 3 Move the cursor to the end of the underlined text.
- 4 Press Gold UNDER LINE.

Centering Text

When you center text, WPS-PLUS aligns the text halfway between the left and right margins unless you embed a C in the ruler. If the ruler contains a C, WPS-PLUS centers text at the C. See Chapter 3 for more information about ruler settings.

To center a line of text:

- 1 Move the cursor to the space after the last character in a line.
- 2 Press Gold CENTR.

WPS-PLUS centers the text and inserts a centering mark, visible only in view mode (see Chapter 11). The cursor and any following text then move to the start of the next line. If you change the margins or type more text on the centered line, WPS-PLUS moves the text to keep it centered.

Spaces are counted as characters when you center a line. If you want a line to appear centered, delete any spaces before or after the text. Before centering tabbed text, remove the tab mark. See Chapter 3.

To remove centering:

- 1 Move the cursor to the space after the last character in the centered line.
 - 2 Press SHIFT/DEL CHAR.
- OR
- 1 Move the cursor to the first character of the line after the centered line.
 - 2 Press RUB CHAR OUT.

Because you have removed the centering mark, the text that was centered moves to the left margin.

Alternative Way to Capitalize, Bold, or Underline Text

You can use another method to capitalize, bold, or underline existing text:

- 1 Move the cursor to the start of the text to be highlighted.
- 2 Press the desired highlighting key (UPPER CASE, BOLD, or UNDER LINE).
- 3 Press a distance key (such as WORD or LINE).
- 4 Press ADVANCE to turn off highlighting.

Combining Highlighting Features

You can highlight text in more than one way. For example, to bold and underline the same text:

- 1 Move the cursor to the start of the text to be highlighted.
- 2 Press **SEL**.

- 3 Move the cursor to the end of the text to be highlighted.
- 4 Press **BOLD**.
- 5 Repeat steps 1 through 3.
- 6 Press UNDER LINE.

Searching a Document

This chapter explains how to use:

- Search
- Go-to functions
- Search-and-replace
- Search-and-delete
- Global search-and-replace

Search

The search function searches a document for a search phrase — a character, word, phrase, or other marker you identify. You can continue searching for the next occurrence of the same phrase, or return to other editing tasks.

When you begin a search, you can start from the current cursor position and search forward or backward, or you can move to the top or bottom of the document to search the entire document.

To start a search:

- 1 Press Gold SRCH.

A prompt appears at the bottom of the screen.

- 2 Type the phrase you are searching for.

See the section The Search Phrase.

If you press ENTER, ADVANCE, or BACK UP without typing a search phrase, WPS-PLUS returns you to your document.

- 3 Press ENTER or ADVANCE to begin a forward search.

OR

Press BACK UP to begin a backward search.

A search begins at the cursor position. When WPS-PLUS locates the phrase, the cursor stops at the first character of the phrase.

WPS-PLUS stops searching and gives you an error message if the cursor reaches the top or bottom of a document without locating the search phrase.

The Search Phrase

A search phrase can include any character that appears in your document. It can also include view mode symbols, like a carriage return or tab. A search phrase can be up to 80 characters long.

If you type lowercase letters in the search phrase, WPS-PLUS searches for those letters in lowercase or uppercase. If you type uppercase letters, WPS-PLUS searches for those letters only in uppercase.

You can include RETURNS and TABs in the search phrase. When you press RETURN, the symbol ← appears; when you press TAB, the symbol → appears. For example, suppose you want to find the following sentence in your document:

```
Please take this report  
to the appropriate supervisor.
```

To search for this phrase:

- 1 Move the cursor to the top of your document.
- 2 Press Gold SRCH.
- 3 Type *Please take this report*
- 4 Press RETURN.

The view mode symbol for a carriage return (↵) appears at the cursor. (See Chapter 11 for more information about view mode.)

- 5 Type *to the appropriate supervisor.*
- 6 Press ENTER.

WPS-PLUS searches the document for the text, including the RETURN symbol.

Go-to-Page

The go-to-page function searches paginated documents for a specific page.

If you have not paginated the document, go to the top of the document and paginate using Automatic Gold PAGE or Gold PAGE. Go-to-page cannot work without page-end marks (NEW PAGE marks or PAGE MARKERS). See Chapter 14 for more information on paginating documents.

To search for a specific page in a document:

- 1 Press Gold SRCH.
- 2 Press SHIFT/PAGE in response to the prompt.
- 3 Enter the page number you want to go to.

WPS-PLUS counts the appropriate number of page-end marks and positions the cursor at the page-end mark at the top of that page.

To locate a page relative to the page the cursor is on:

- 1 Press Gold SRCH.
- 2 Press SHIFT/PAGE in response to the prompt.
- 3 Enter a positive or negative sign and the number of pages you want to skip.

For example, enter +10 to advance 10 pages or -2 to back up 2 pages in your document.

WPS-PLUS counts the appropriate number of page-end marks, and positions the cursor at the page-end mark at the top of that page.

NOTE: RESET commands in control blocks can change the numbering of the printed pages. Therefore, page numbers used by the go-to-page function may not correspond to the page numbers in the printed document.

Go-to-Ruler

For information on go-to-ruler, see Chapter 3.

Continuing a Search

To continue a search:

Press Gold CONT SRCH.

The search continues in the same direction for the next occurrence of the search phrase.

You can use Gold CONT SRCH for search phrases only, not for go-to functions.

Searching a Document

To search an entire document:

- 1 Press Gold TOP DOCMT.
- 2 Press Gold SRCH.

- 3 Type the search phrase.
- 4 Press ADVANCE or Gold CONT SRCH.
- 5 Press Gold CONT SRCH after each occurrence of the search phrase.
The search continues.

Stopping a Search

To cancel a search in progress:

Press ALT/INTERRUPT.

To continue a search after pressing ALT/INTERRUPT:

Press Gold CONT SRCH.

Search-and-Replace

The search-and-replace feature searches for a word or phrase and replaces it with the contents of the WPS-PLUS paste area.

To search for and replace a phrase:

- 1 Press SEL.
- 2 Type the replacement phrase.
- 3 Press CUT.
The replacement phrase is moved to the WPS-PLUS paste area.
- 4 Press Gold SRCH.
- 5 Type the search phrase at the prompt.
See the section The Search Phrase.
- 6 Press Gold CONT SRCH & SEL.
The cursor advances through the text to the first occurrence of the search phrase. WPS-PLUS then selects the search phrase.
- 7 Press Gold REPLC to replace the selected phrase with the contents of the WPS-PLUS paste area.

Search-and-replace always works in a forward direction. To search the entire document, press Gold TOP DOCMT before you start the search. The search begins at the cursor position and ends at the bottom of the document.

To continue to search for and replace occurrences of a phrase:

- 1 Press Gold CONT SRCH & SEL.
- 2 Press Gold REPLC to replace the selected phrase.

OR

If you decide not to replace the selected phrase, press Gold CONT SRCH & SEL to remove the select mark and continue the search.

Search-and-Delete

To search for and delete a phrase:

- 1 Press SEL, then CUT, to clear the WPS-PLUS paste area.
- 2 Press Gold SRCH and type in the search phrase.
- 3 Press Gold CONT SRCH & SEL to locate the phrase in your text.
- 4 Press Gold REPLC.

Because the paste area is empty, the search phrase is deleted.

NOTE: Spaces before and after the deleted text remain unless you include any spaces you want to delete in the search phrase.

Global Search-and-Replace

The global search-and-replace feature replaces all occurrences of a word or phrase with the contents of the WPS-PLUS paste area.

WPS-PLUS can do a global search only in the forward direction. To search the entire document, press Gold TOP DOCMT before you start the search. The global search begins at the cursor position and ends at the bottom of the document.

To start a global search-and-replace:

- 1 Move the cursor to where you want the search to begin.
- 2 Press Gold GLBL REPLC.
OR
Press Gold MENU and enter GS.
- 3 Type the search phrase in response to the prompt.
- 4 Press ENTER.
A prompt appears.

You can then:

Type the replacement phrase and press ENTER.

WPS-PLUS searches the document and replaces all occurrences of the search phrase with the replacement phrase.

OR

Press ENTER to delete all occurrences of the search phrase.

If you are deleting all occurrences of a search phrase, remember to include in the search phrase any extra spaces you want deleted.

OR

Press SHIFT/PASTE.

WPS-PLUS replaces all occurrences of the search phrase with the current contents of the WPS-PLUS paste area, including any highlighted text and control commands.

OR

Press EXIT SCREEN to return to your document.

As WPS-PLUS searches forward from the cursor to the end of the document, a message tells you that it is replacing all occurrences of the search phrase.

To stop a global search-and-replace:

Press ALT/INTERRUPT.

Replacements that have occurred remain in the document.

Hyphenating Words

This chapter explains how to use:

- The three types of hyphens: nonbreaking, breaking, and invisible
- Nonbreaking spaces
- Hyphen push
- Hyphen pull
- The hyphenation zone

Nonbreaking Hyphen

If your document has a hyphenated word that you do not want WPS-PLUS to divide at the right margin, type the word with a nonbreaking hyphen. When this word crosses the right margin, WPS-PLUS wraps the entire word to a new line.

Nonbreaking hyphens are typically used in telephone numbers or proper names, such as Daniel Ford-Jones.

To insert a nonbreaking hyphen at the cursor:

Press the hyphen (-) key.

Breaking Hyphen

If your document has a hyphenated word that can be divided at the right margin, type the word with a breaking hyphen. For instance, if the word *two-thirds* crosses the right margin and the hyphen is a breaking hyphen, WPS-PLUS leaves *two-* on the first line and moves *thirds* to the next line.

To insert a breaking hyphen at the cursor:

Press Gold PRINT HYPH.

Invisible Hyphen

An invisible hyphen, like a breaking hyphen, divides a word at the end of a line, but until the word is divided, the hyphen is not visible on the screen. Use invisible hyphens to prevent long words from wrapping and leaving gaps in your text when the document prints.

For example, suppose the word *internationalization* appears in your text. You can put an invisible hyphen between *r* and *n*, and between *l* and *i*. If the word crosses the right margin, WPS-PLUS divides and hyphenates the word at one of those two locations.

To insert an invisible hyphen while you are typing:

- 1 Type the characters before the hyphen.
- 2 Hold down SHIFT and press Gold PRINT HYPH.

The hyphen does not appear on the screen, and the cursor does not move.

- 3 Type the rest of the word, repeating step 2 if necessary.

To insert an invisible hyphen into an existing word:

- 1 Place the cursor on the character that will follow the hyphen.
- 2 Hold down SHIFT and press Gold PRINT HYPH.

The hyphen does not appear on the screen, and the cursor does not move.

Invisible hyphens are visible in view mode, as explained in Chapter 11.

Nonbreaking Spaces

Use nonbreaking spaces to join words that should never be on separate lines, such as Van Gogh or 12 June 83 or du Prie. If you were to use an ordinary space with these phrases, WPS-PLUS might leave Van at the end of one line and start the next line with Gogh.

WPS-PLUS treats a nonbreaking space as if it were a character in the word. The cursor does not stop at nonbreaking spaces when you press ADVANCE WORD or BACK UP WORD, because WPS-PLUS does not consider non-breaking spaces to be word separators.

To insert a nonbreaking space at the cursor:

Press Gold NONBREAKING SPACE.

Hyphen Push

- If a long word does not contain an invisible or a breaking hyphen and the word runs past the right margin, WPS-PLUS wraps the entire word to the start of the next line. The cursor is now on the new line, but there is probably a large gap at the end of the previous line. You can push characters back to the previous line to make the line ending more uniform.

To push characters back to the previous line:

- 1 Place the cursor anywhere on the line that starts with the long word.
- 2 Press ALT/HYPH PUSH.
WPS-PLUS pushes the first character of the word up to the previous line. A hyphen appears after the pushed character.
- 3 Continue to press ALT/HYPH PUSH for each character you want to push up to the previous line.
WPS-PLUS moves each character up to the previous line, before the hyphen.

If you push too many characters to the previous line, you can reverse the process by using hyphen pull. See the section Hyphen Pull.

If a word contains an invisible hyphen, HYPH PUSH moves all the letters before the hyphen to the previous line, if they fit. If they do not fit in the margin, or if you push too many letters up to the previous line, WPS-PLUS moves the entire word back to the line it was on.

Hyphen Pull

To reverse the HYPH PUSH process:

- 1 Place the cursor anywhere on the line that contains the second part of the divided word.
- 2 Press Gold ALT/HYPH PULL once for each character.

Gold HYPH PULL pulls a character down from the previous line to the line the cursor is on.

Hyphenation Zone

The letter H in a ruler sets up a hyphenation zone. The hyphenation zone is the area between the H and the right-margin (R or J) setting. Typically, you put the H in the ruler a few spaces before the right margin.

Whenever WPS-PLUS wraps a word to the next line and leaves the hyphenation zone blank, the beeper sounds. When you hear the beeper, you can decide if you want the wrapped word to be hyphenated instead. Use HYPH PUSH as many times as needed to push characters to the previous line.

See Chapter 3 for information about the hyphenation zone in a ruler.

Abbreviation Documents and Library Documents

This chapter explains how to create and use two types of stored text:

- Abbreviation documents
- Library documents

Abbreviation and library documents contain text you have stored for insertion in documents. An abbreviation document contains short phrases (such as a company name) stored under two-character abbreviations. A library document contains larger amounts of text (such as a letter) stored under short names.

Creating an Abbreviation Document

To create an abbreviation document:

- 1 Create a document.
- 2 Type two left angle brackets (<<).

- 3 Type a two-character abbreviation.

You must use a two-character abbreviation. WPS-PLUS does not recognize one- or three-letter abbreviations.

- 4 Type two right angle brackets (>>).
- 5 Type the stored phrase.
- 6 Type another abbreviation or press Gold FILE DOCMT to file the document.

The stored phrase consists of all characters after the right angle brackets (>>) up to the next pair of left angle brackets (<<). The stored phrase can include subscripts, superscripts, highlighted characters, TAB marks, invisible hyphens, and rulers.

You can type left angle brackets immediately after the stored text to continue a list of abbreviations. For example:

```
<<DC>>Digital Equipment Corporation <<OP>>Ophthalmology
```

Or you can press RETURN after each entry to make the abbreviation document easier to read. For example:

```
<<DC>>Digital Equipment Corporation  
<<OP>>Ophthalmology
```

Any spaces or RETURNs that you include after the stored phrase and before the next pair of left angle brackets become part of the stored phrase that WPS-PLUS inserts into your document. For example, you could type the following as an inside address for a letter:

```
<<GS>>Granite State Corporation  
Suite 33  
Limestone Building  
Concord, NH 03782
```

You can edit an abbreviation document at any time.

Using an Abbreviation Document

To use text from an abbreviation document, you must first specify the abbreviation document at the Editor Menu. You can then insert text from the abbreviation document into a document you are editing.

To specify the abbreviation document:

- 1 Press Gold MENU.

The Editor Menu appears.

- 2 Enter AD.

The cursor moves to the Abbreviation Document field.

- 3 Type the title of the abbreviation document.

The document you specify must be stored on your fixed disk (for fixed-disk systems) or on your document diskette in Drive B (diskette-based systems). Be sure to include the path name for the document. For example, if the abbreviation document ABBREV1 is stored on a diskette in Drive B, type:

B: ABBREV1

See *WPS-PLUS Getting Started* for more information about path names.

- 4 Press RETURN.

- 5 Enter OK to return to the WPS-PLUS Editor.

Once you specify an abbreviation document, it remains specified at the Editor Menu. You do not need to use the AD option again unless you specify a different abbreviation document.

To insert text from the abbreviation document:

- 1 Move the cursor to where you want to insert the abbreviation text.
- 2 Press Gold ABBRV.
- 3 Enter the two-character abbreviation for the phrase.

The stored text is inserted in your document.

If no entry in the abbreviation document matches the abbreviation, WPS-PLUS displays a message to let you know. Check the Editor Menu to be sure you have specified the correct abbreviation document. Also make sure you have typed the correct abbreviation at the prompt.

Creating a Library Document

To create a library document:

- 1 Create a document.
- 2 Type two left angle brackets (<<).
- 3 Type a short, descriptive name for the stored text.
- 4 Type two right angle brackets (>>).
- 5 Embed a ruler on the line below the short name if the text you are storing requires special formatting.
- 6 Type the stored text.
- 7 Type another pair of left angle brackets to mark the start of another short name.

OR

Press Gold FILE DOGMT to file the document.

Here is a sample library document:

```
<<MEMO>>
*****
* d i g i t a l *   I N T E R O F F I C E   M E M O R A N D U M
*****

TO:                                     DATE:
                                      FROM: Elwood P. Dowd
                                      DEPT: Public Relations
                                      EXT: 432-6701
                                      LOC: Room 310
```

SUBJECT:

Thank you for your recent inquiry. . . .

Text in a library document can include subscripts, superscripts, highlighted characters, TAB marks, invisible hyphens, and rulers. Any spaces or RETURNS included after the library name and before the next pair of left angle brackets become part of the text that is inserted into your document.

You can edit a library document at any time.

Using a Library Document

To use text from a library document, you must first specify the library document at the Editor Menu. Then you can insert text from the library document into a document you are editing.

To specify the library document:

- 1 Press Gold MENU.

The Editor Menu appears.

- 2 Enter LD.

The cursor moves to the Library Document field.

- 3 Type the title of the library document.

The document you specify must be stored on your fixed disk (for fixed-disk systems) or on your document diskette in Drive B (diskette-based systems). Be sure to include the path name for the document. For example, if the library document LIBRY1 is stored on a diskette in Drive B, type:

```
B:LIBRY1
```

See *WPS-PLUS Getting Started* for more information about path names.

- 4 Press RETURN.
- 5 Enter OK to return to the WPS-PLUS Editor.

Once you specify a library document, it remains specified at the Editor Menu. You do not need to use the LD option again unless you specify a different library document.

To insert text from the library document:

- 1 Move the cursor to where you want to insert the library text.
- 2 Press Gold LIBRY.
- 3 Enter the short name of the stored text. For example:

```
Enter name  
MEMO
```

The stored text is inserted in your document.

If no entry in the library document matches the short name, WPS-PLUS displays a message to let you know.

Restrictions and Additional Information

You can store Two-Dimensional Editor diagrams in your abbreviation and library documents. Be sure the abbreviation or short phrase (in brackets) is not inside the diagram. If it is, WPS-PLUS does not recognize the symbol and tells you that the diagram was not found.

WPS-PLUS treats the Gold LIBRY and Gold ABBRV functions differently when you use them in the TDE. See Chapter 15 for more information about using the Two-Dimensional Editor.

Stored text cannot include double left angle brackets (<<). Double left angle brackets tell WPS-PLUS to expect another entry.

Composite and Multinational Characters

This chapter explains how to create:

- Composite characters
- Multinational characters

A composite character is made by combining two or more characters.

A multinational character is a composite character that is in the DEC Multinational Character Set. See Appendix A.

Hardware Restrictions

Because of video limitations of the PC, you cannot display all the Multinational Character Set characters on your screen. However, you can still print multinational characters on a properly equipped printer. See the Software Product Description for more information.

Composite Characters

To create a composite character:

- 1 Type the two characters that make up the composite character.
- 2 Press BACK UP to move the cursor to the second character.
- 3 Press Gold DEAD KEY.

The two characters combine, but the composite character does not display on your screen. However, you can print the composite character on a properly equipped printer.

Table 9-1 shows a few of the composite characters you can create and print.

Table 9-1 Sample Composite Characters

Combine Characters	To Print	Description
< and	⋄	is-not-less-than symbol
+ and _	±	plus/minus symbol
= and /	≠	does-not-equal symbol
c and /	¢	cents symbol

WPS-PLUS treats a composite character as a single character. You can highlight, erase, superscript, and subscript the character. You cannot erase a component of a composite character or move the cursor inside a composite character without first separating the composite character into its components.

To separate a composite character into its components:

- 1 Move the cursor to the composite character.
- 2 Press Gold DEAD KEY.

Multinational Characters

To create a DEC Multinational Character:

- 1 Press ALT/COMPOSE and type the two characters that make up the multinational character. See Appendix A.
- OR
- 1 Type the two characters that make up the multinational character. See Appendix A.
 - 2 Press BACK UP to move the cursor to the second character.
 - 3 Press Gold DEAD KEY.

The two characters combine and the multinational character is displayed on your screen if your terminal is capable of displaying it. See the section Hardware Restrictions.

WPS-PLUS treats a DEC Multinational Character as a single character. You can highlight, erase, superscript, and subscript the character.

You cannot separate a multinational character into its component parts. Only composite characters can be separated. See the section Composite Characters.

For a list of DEC Multinational Characters and the characters that compose them, see Appendix A.

Restrictions

If you combine two characters that are highlighted differently, they will be highlighted the same if you separate them. For example, if you combine an underlined character with a bolded character and then separate them, both characters will be underlined and bolded.

If you combine a subscripted character with a superscripted character, WPS-PLUS forms a subscripted composite character. When you separate the composite character, both characters will be subscripted.

10

Subscripts, Superscripts, and Complex Expressions

This chapter explains how to create:

- Subscripts
- Superscripts
- Complex expressions

Subscripts and Superscripts

A superscript is a character that prints one-half line above line level (for example, $E = MC^2$).

A subscript is a character that prints one-half line below line level (for example, H_2O).

Subscripts and superscripts are printed half a line below or above line level, as appropriate. On your terminal screen, subscripts and superscripts appear on the same level as the rest of the line. They are visible only in view mode. (See Chapter 11.)

To subscript or superscript a single character:

- 1 Place the cursor at the character you are subscripting or superscripting.
- 2 Press Gold SUB SCRIPT or Gold SUPER SCRIPT.

To subscript or superscript several characters:

- 1 Place the cursor at the first character.
- 2 Press Gold SUB SCRIPT or Gold SUPER SCRIPT once for each character.

OR

- 1 Place the cursor at the first character.
- 2 Press SEL.
- 3 Move the cursor past the last character.
- 4 Press Gold SUB SCRIPT or Gold SUPER SCRIPT.

To cancel superscripting:

Subscript the character(s).

To cancel subscripting:

Superscript the character(s).

NOTE: Wherever you use Gold SUB SCRIPT or Gold SUPER SCRIPT, you should embed a ruler with space-and-a-half or double spacing (N or D in the ruler). Otherwise, the subscripts and superscripts crowd into adjacent lines in a printed document. For more information on ruler settings for left margins, see Chapter 3.

Complex Expressions

Complex expressions contain many subscripts and superscripts, or several levels of subscripts or superscripts. For example:

$$a_1m + 2ma_2b + a_2m^2a + \dots + a_nm^{n-1}$$

To type an expression that has subscripts and superscripts, or several levels of subscripts or superscripts:

- 1 Press Gold RULER and embed an F left-margin setting in your ruler.
F in the ruler tells WPS-PLUS to use half-line spacing when the document is printed. See Chapter 3 for more information about ruler settings.
- 2 Type any characters before the subscripted or superscripted character.
- 3 Press RETURN to move the cursor to the next line for subscripting.
OR
Move the cursor to the end of the previous line and press RETURN for superscripting.
- 4 Press the space bar until the cursor is positioned where you want the subscript or superscript in your printed text.
- 5 Type the subscript or superscript character one line below or above the space where you want it printed.
Do not press Gold SUB SCRIPT or Gold SUPER SCRIPT. The F margin setting provides the half-line spacing.
- 6 Repeat steps 2 through 5 until you finish typing the complex expression.
- 7 Reset the left-margin setting, if necessary.

WPS-PLUS prints the subscript or superscript where it appears on your screen, as long as the ruler above the character has an F left-margin setting.

View Mode

This chapter explains how to:

- Place the WPS-PLUS Editor in view mode
- Use view mode to check that format markers are correctly placed in a document

Normally when you use the WPS-PLUS Editor, you cannot see all the instructions that format the printed text. For example, centering marks, subscripts, and superscripts are not displayed on your screen. View mode shows you these formatting symbols.

View Mode

You can enter view mode at any time while you are editing a document.

To enter view mode:

Press Gold VIEW.

To exit from view mode:

Press Gold VIEW again.

You can continue editing while in view mode, but the text is double-spaced, so you see only twelve lines at any time.

You can search for carriage returns and tabs in view mode. See Chapter 6.

NOTE: Many editing operations, such as Gold TOP DOCMT, Gold BOT DOCMT, CUT, and PASTE, take you out of view mode.

View Mode Symbols

Tables 11-1 and 11-2 show the special symbols used in view mode.

Table 11-1 View Mode Symbols

Symbol	Stands For	Meaning
←	RETURN	You pressed the RETURN key. The RETURN symbol also marks the end of a document.
o	Word wrap	WPS-PLUS wrapped text from this point to the next line.
→	Tab mark	You pressed the TAB key.
....	Soft spacing	WPS-PLUS inserted soft spacing to indent a left margin, to move tabbed text to a tab stop, or to center a line.
┌	Paragraph indent	You pressed Gold PARA MARKER.
├	Centering mark	You pressed Gold CENTR.
q	Superscript	You pressed Gold SUPER SCRIPT.
a	Subscript	You pressed Gold SUB SCRIPT.
^	Nonbreaking space	You pressed Gold NONBREAKING SPACE.

Spaces created by pressing the space bar are not indicated by a special symbol in view mode. For example, the third line in the following display uses spacing instead of tabbing:

```
-----L-----T-----R
      →,.,.,Senate Approval←
      →,.,.,House Approval←
            Committee Recommendation←
```

Hyphens in View Mode

You can use view mode to check hyphenation in your document. Table 11-2 shows the three types of hyphens displayed in view mode.

Table 11-2 Hyphens in View Mode

Display	Stands For	Meaning
Hyphen as in 555-1212	Nonbreaking hyphen	You pressed the hyphen (-) key.
Hyphen and Slash as in two-thirds /	Breaking hyphen	You pressed Gold PRINT HYPH. The hyphen is visible after the o.
Slash as in compound /	Invisible hyphen (Between m and p in the example.)	You pressed Gold PRINT HYPH with the SHIFT key held down.

12

Control Blocks

This chapter describes how to insert control blocks in a document. Control blocks allow you to:

- Print headers and footers
- Print page and section numbers
- Reset the page and section count
- Print the current date in a header or footer
- Change print settings
- Print and paginate multicolumn text

Creating Control Blocks

To insert a control block:

- 1 Press Gold CMND to insert a START CONTROL marker.

Control block markers distinguish control block text from other text.

- 2 Type a control block command.
See Table 12-1 for a list of control block commands.
- 3 Press RETURN.
- 4 Type any text that should follow the command.
- 5 Press RETURN.
- 6 Press Gold CMND again to insert an END CONTROL marker.

Here is a typical control block:

```
----- START CONTROL -----  
TOP  
June Salary Report  
  
----- END CONTROL -----
```

To remove a START CONTROL or END CONTROL marker:

- 1 Place the cursor at the first character after the control block marker.
 - 2 Press RUB CHAR OUT.
- OR
- 1 Place the cursor at the control block marker.
 - 2 Press SHIFT/DEL CHAR.

Control Block Commands

There are fourteen control block commands, shown in Table 12-1. You can type control block commands in uppercase or lowercase.

Table 12-1 Control Block Commands

Use	To
\d	Tell WPS-PLUS to print the current date in a header or footer.
\p	Tell WPS-PLUS to print a page number in a header or footer.
\s	Tell WPS-PLUS to assign a section number or add 1 to the current section number.
BOTTOM	Tell WPS-PLUS to use the text within the control block as a footer at the bottom of every page.
COMMENT	Tell WPS-PLUS to use the text in the control block as a comment. The text in the control block is not printed, but can be viewed and edited on the screen.
MULTI	Tell WPS-PLUS to print text in multiple columns. The remaining text in the control block specifies the number of columns and, optionally, the column widths.
PRINTER FORMAT	Tell WPS-PLUS to change the printer format within a document to portrait or landscape. Used only for laser printers.
PRINTER MODE	Tell WPS-PLUS to change the printer mode within a document to draft or letter quality.
PRINTER SELECT	Tell WPS-PLUS to change the automatic sheet feeder tray while printing a document. Possible values are front, rear, letterhead, and envelope.
PRINTER TABLE	Tell WPS-PLUS to initiate a control sequence as defined in the attribute table of the Printer Table Utility. See <i>WPS-PLUS Installation and Printer Tables</i> for information on the Printer Table Utility.
RESET	Tell WPS-PLUS to reset its count of page numbers to the number assigned by the RESET command. If you do not specify a new page number, WPS-PLUS sets the page number to the value of the Number on the first page print setting that normally assigns the first page number.

(continued)

Table 12-1 Control Block Commands (Cont.)

Use	To
SECTION	Tell WPS-PLUS to reset its count of section numbers to the number assigned by the SECTION command. If you do not specify a new section number, the SECTION command adds 1 to the current section number.
TOP	Tell WPS-PLUS to use the text within the control block as a header at the top of every page.
WPSMATH	Tell WPS-PLUS to perform math calculations on specified numbers. See Chapter 13 for more information.

Restrictions

If the first line in a control block is not a command, WPS-PLUS considers any text in the control block to be a comment. See Table 12-1 for information about comments in control blocks.

You can put only one command in a control block. The WPSMATH command is an exception.

You must have one END CONTROL marker for each START CONTROL marker.

Headers and Footers

A header is text printed in the top margin of a page. Here is a sample header:

May Status Report

A footer is text printed in the bottom margin of a page. Here is a sample footer:

1 - 9

This footer identifies page nine in Chapter 1.

Headers and footers contain information such as the following:

- The title of the document or chapter
- The section or chapter number
- The page number
- The date
- The revision level

To insert headers in a document:

- 1 Move the cursor to the top of the first page where the header should appear.

In your document, this means you must place the cursor immediately after the page-end mark. See Chapter 14 for more information about NEW PAGE marks and PAGE MARKERS.

Do not leave a space between the page-end mark and the header control block. If you leave a space, the header in the control block will not appear on the correct page. It will appear on the following page. See the section Restrictions for Headers and Footers.

- 2 Press Gold CMND to start a control block.
- 3 Type TOP.
- 4 Press RETURN.
- 5 Type the text for the header, spacing the text between the left and right margins as you want the text to appear.
- 6 Press RETURN two or more times to ensure space below the header.
- 7 Press Gold CMND to end the control block.

To insert footers in a document:

- 1 Move the cursor to the first page where you want the footer to appear.

If you are also inserting a header in a document, place the footer control block immediately after the header. This ensures they will appear on the same page.

- 2 Press Gold CMND to start a control block.
- 3 Type BOTTOM.
- 4 Press RETURN two or more times to ensure space above the footer.
- 5 Type the text for the footer, spacing the text between the left and right margins as you want the text to appear.
- 6 Press RETURN.
- 7 Press Gold CMND to end the control block.

Rulers

WPS-PLUS prints the header or footer according to the ruler in effect where you typed the text for the header or footer.

A header or footer can contain a ruler. Like any ruler, a ruler in a control block changes the settings for text until the next ruler. For more information about rulers, see Chapter 3.

Restrictions for Headers and Footers

A new header or footer replaces the previous one.

Headers can have the same number of lines as the top margin, or fewer. Footers can have the same number of lines as the bottom margin, or fewer. If a header or footer has too many lines, WPS-PLUS omits lines from the bottom of the header or the top of the footer. See Chapter 14 for information about adjusting page size.

During printing, if WPS-PLUS encounters the TOP control block command when the printer is at the top of a page, WPS-PLUS prints the header at the top of that page and all following pages. If the header command is included anywhere else on a page, WPS-PLUS prints the header when it reaches the top of the next page.

Page and Section Numbers

To print a page number in a header or footer:

Include the `\p` command in a TOP or BOTTOM control block.

For example:

```
----- START CONTROL -----  
TOP  
PAGE \p  
  
----- END CONTROL -----
```

This control block prints the word PAGE before the page number in the header. For example:

```
PAGE 9
```

The two blank lines following PAGE `\p` in the control block ensure two blank lines between the page number and the text below the page number.

NOTE: The character `\` is a backslash. Do not use the slash, `/`.

To print a section number in a header or footer:

Include the `\s` command in a TOP or BOTTOM control block.

For example:

```
----- START CONTROL -----  
TOP  
SECT, \s, PAGE \p  
  
----- END CONTROL -----
```

The following is a sample header printed by this control block:

```
SECT, 2, PAGE 4
```

To highlight the section or page number with bolding, underlining, centering, or some other feature, highlight the s or p. For more information on highlighting, see Chapter 5.

You can combine the \s and \p commands with other text. For instance, you can type 3-\p. WPS-PLUS then prints page numbers 3-1, 3-2, and so on.

Printing Chapter and Page Numbers

Suppose you want to print Chapter 1 with page numbers 1-1, 1-2, 1-3, and so on. Other chapters should be numbered the same way, Chapter 2 beginning with page 2-1, Chapter 3 with page 3-1, and so on.

To print page and chapter numbers when chapters are in separate documents:

On the first page of each chapter, type the chapter number followed by \p in the TOP or BOTTOM control block.

For example, 1-\p for Chapter 1, 2-\p for Chapter 2, and so on.

To print page and chapter numbers when chapters are in the same document:

- 1 On the first page of each chapter, before the TOP or BOTTOM control block, insert a control block with a RESET 1 command to set the page count back to 1.
- 2 Type the chapter number followed by \p in the TOP or BOTTOM control block (1-\p for Chapter 1, 2-\p for Chapter 2, and so on).

Resetting the Page Count

Unless you use a RESET command, page numbering is controlled by the Number on the first page print setting. See Chapter 4 in *WPS-PLUS on PC* for information on print settings.

To change the number of a page and all pages that follow until another RESET command:

- 1 Press Gold CMND.
- 2 Type RESET.
- 3 Type a space.
- 4 Type the number to assign to the page.
- 5 Press RETURN.
- 6 Press Gold CMND to end the control block.

To reset the page number to the value of the Number on the first page print setting:

- 1 Press Gold CMND to start the control block.
- 2 Type RESET.
- 3 Press RETURN.
- 4 Press Gold CMND to end the control block.

To reset page and section numbers at the same time, use the SECTION command before the RESET command.

Resetting the Section Count

Section numbers are not assigned automatically, as page numbers are.

To assign a section number or to add 1 to the current section number:

Include a SECTION command in a control block.

For example:

```
----- START CONTROL -----  
SECTION  
----- END CONTROL -----
```

If this is the first SECTION command in a document, the section number 1 is assigned to the current text. If it is not the first SECTION command, the current section number is increased by 1.

To assign an explicit section number:

Include the section number with the SECTION command.

For example:

```
----- START CONTROL -----  
SECTION 5  
----- END CONTROL -----
```

This SECTION command assigns the section number 5 to the text that follows until the next SECTION command.

To reset page and section numbers at the same time, use the SECTION command before the RESET command.

Restrictions on Resetting the Page/Section Count

If you change the values for the Number on the first page setting and the Last page printed setting to values other than 1 and 0, respectively, RESET control blocks can cause unexpected output. If a RESET control block decreases the current page number, extra pages might print.

For example, if you set the Number on the first page setting to 1 and the Last page printed setting to 3, and your document contains a RESET command after page 3, pages 1 through 3 at the beginning of the document print. However, the pages numbered 1 through 3 that follow the RESET command will also print. To avoid printing extra pages, put each chapter or section that contains a RESET command in a separate document.

Current Date

If \d appears in a header or footer, WPS-PLUS automatically prints the current date.

For example:

31-Dec-1984

To bold or underline the date:

Bold or underline the d.

You can type the \d in a header with other text. For example:

```
-----START CONTROL-----  
TOP  
DATE: \d  
-----END CONTROL-----
```

Changing Print Settings

Control blocks allow you to change certain print settings within a document. The control block commands override the current print settings as the document is printing. You can make four types of changes to the print settings:

- Printer mode — draft or letter quality
- Automatic sheet feeder (ASF) tray — front, rear, letterhead, envelope
- Printer format — portrait or landscape (laser printers only)
- Printer Table Utility keywords

Control block commands override but do not reset the original print settings. For example, if the Sheet feeder control setting on the Print Settings Menu is set to FRONT when a document begins printing, and you use a control block to change the ASF tray to REAR, the Sheet feeder control setting remains at FRONT after the document has printed.

NOTE: If you insert a control block command for an unsupported printer, WPS-PLUS ignores the command.

To change the printer mode within a document:

- 1 Press Gold CMND to start the control block.
- 2 Type PRINTER MODE.
- 3 Type one of the following on the same line:
 - DRAFT
 - LETTER
- 4 Press Gold CMND to end the control block.

For example, the following control block changes the printer mode from draft to letter quality:

```
----- START CONTROL -----  
PRINTER MODE LETTER  
----- END CONTROL -----
```

To change the automatic sheet feeder tray within a document:

- 1 Press Gold CMND to start the control block.
- 2 Type PRINTER SELECT.
- 3 Type one of the following on the same line:
 - FRONT
 - REAR
 - LETTERHEAD
 - ENVELOPE
- 4 Press Gold CMND to end the control block.

For example, the following control block changes the automatic sheet feeder to the rear tray:

```
----- START CONTROL -----  
PRINTER SELECT REAR  
----- END CONTROL -----
```


To change the printer format within a document:

- 1 Press Gold CMND to start the control block.
- 2 Type PRINTER FORMAT.
- 3 Type one of the following on the same line:
 - PORTRAIT
 - LANDSCAPE
- 4 Press Gold CMND to end the control block.

In portrait format, characters print parallel to the short edge of the paper.
In landscape format, characters print parallel to the long edge of the paper.

For example, the following control block changes the printer format from portrait to landscape mode:

```
----- START CONTROL -----  
PRINTER FORMAT LANDSCAPE  
----- END CONTROL -----
```

To change a Printer Table Utility keyword within a document:

- 1 Press Gold CMND to start the control block.
- 2 Type PRINTER TABLE.
- 3 Type a Printer Table Utility keyword or keywords on the same line.
- 4 Press Gold CMND to end the control block.

The Printer Table Utility keyword initiates a control sequence defined in the attribute table of the Printer Table Utility. If you include more than one keyword in a control block, separate keywords with a space.

For example, this control block causes the following text to print in italics:

```
----- START CONTROL -----  
PRINTER TABLE SET_ITALICS  
----- END CONTROL -----
```

In this example, the keyword `SET _ITALICS` has been defined in the attribute table as a control sequence that changes the font in a laser printer to italics. For more information on the Printer Table Utility, see *WPS-PLUS Installation and Printer Tables*.

For more information on these print settings, see Chapter 4 in *WPS-PLUS on PC*.

Multicolumn Printing

Control blocks allow you to print in columns.

This section explains how to start and end multicolumn printing, and how to separate columns of text. See the section *Creating Multicolumn Documents* for an example of multicolumn formatting and for complete instructions on creating a multicolumn document.

A control block starts multicolumn printing when it contains the `MULTI` command followed by the number of columns you want. A control block with only a `MULTI` command stops multicolumn printing.

To begin multicolumn format:

- 1 Press Gold CMND to begin the control block.
- 2 Type `MULTI` and press RETURN.
- 3 Type the number of columns you want and press RETURN.
- 4 Press Gold CMND again to end the control block.
- 5 Adjust the text ruler to the desired width for one column.

For example:

```
----- START CONTROL -----  
MULTI  
2  
----- END CONTROL -----  
L-----R-----
```

Use additional `MULTI` control blocks to change the number of columns or the width of columns.

NOTE: The sum of the widths of all the columns (plus the spaces between columns) must fit the width of the paper. For example, if you use a column width of 40 characters (by setting the R in the ruler at 40) you can define only two columns in the control block when using paper 8 1/2 inches wide.

To end multicolumn format:

- 1 Press Gold CMND to begin the control block.
- 2 Type MULTI and press RETURN.
- 3 Press Gold CMND again to end the control block.
- 4 Adjust the ruler to the width of text on a full page.

For example:

```
----- START CONTROL -----  
MULTI  
----- END CONTROL -----  
L-----R
```

You can start or stop multicolumn printing in the middle of a page.

NOTE: For multicolumn documents containing one-line entries, use tab positions instead of multicolumn formatting.

Separating Columns

When you use multicolumn formatting, separate multiple columns by:

- Indenting the left margin
OR
- Changing the Spaces between columns print setting
OR
- Setting column widths in the MULTI control block

Separating Columns by Indenting. To separate columns by indenting:

- 1 Type the MULTI control block.
- 2 Press Gold RULER to display the ruler.
- 3 Place the cursor a few spaces in from the first column of the ruler.
- 4 Type a left-margin character.

The number of spaces between the first column of the ruler and the left-margin character determines the number of spaces between columns. The first column is also indented that many spaces from the left margin.

For example, the MULTI control block and ruler shown here produce a document with three columns. Each printed column is 20 spaces wide. There are five spaces between columns. The first column on the left begins five spaces from the edge of the paper:

```
----- START CONTROL -----
MULTI
3
----- END CONTROL -----
-----L-----R-----
      ..... 20 .....

```

Separating Columns by Changing Print Settings. To separate columns by changing the Spaces between columns print setting:

- 1 Type the number of spaces you want between columns in the Spaces between columns setting on the Print Settings Menu.

See Chapter 4 in *WPS-PLUS on PC* for information about print settings.

- 2 Print the document.

The columns are separated by the number of spaces you entered on the form.

For example, the MULTI control block and ruler in the example produce a document with three columns. Each printed column is 20 characters wide. If you enter 5 as the Spaces between columns setting, there will be five spaces between columns. The first column on the left begins in the first space unless you change the Spaces in left print margin setting.

```

----- START CONTROL -----
MULTI
3
----- END CONTROL -----
L-----R-----
..... 20 .....

```

Separating Columns by Setting Column Widths. To separate columns by setting column widths:

- 1 Enter a width for each column when you create the MULTI control block.
- 2 For each column, set a ruler to a width narrower than the column width you listed in the MULTI command.

The amount of space between columns equals the number of spaces listed in the MULTI control block minus the number of spaces for that column in the ruler.

For example, the MULTI control block and rulers shown here produce a document with three columns. The first column is 25 characters wide. The second column is also 25 characters wide. The last column is 30 characters wide. The ruler widths are 20, 20, and 25, leaving 5 spaces between the printed columns.

```

----- START CONTROL -----
MULTI      ←      command
3          ←      no. of cols.
25         ←      1st col. width
25         ←      2nd col. width
30         ←      3rd col. width
----- END   CONTROL -----
L-----R-----
, . . . 20 . . .

L-----R-----
, . . . 20 . . .

L-----R-----
, . . . . 25 . . . . .

```

NOTE: *If your multicolumn text has a ruler for half-line spacing (F or N setting), do not change this setting within the multicolumn text. Otherwise your document will not print correctly.*

Creating Multicolumn Documents

To create a multicolumn document:

- 1 Press Gold CMND to begin a control block.
- 2 Type MULTI and press RETURN.
- 3 Type the number of columns in the document and press RETURN.
- 4 Press Gold CMND to end the control block.
- 5 Change the ruler to reflect the width of one column.

You can also indent the left-margin character, if you are using this method to separate columns.

- 6 Type the text for the first column, first row, of the table.
- 7 Press RETURN twice.

The blank line below the text provides spacing between rows.

- 8 Press Gold NEW PAGE.

- 9 Repeat steps 6 through 8 for each row of your table until you have typed the text for the last column, last row on a page.
- 10 End multicolumn format by inserting a control block with a MULTI command only.
- 11 Press Gold NEW PAGE to end the page.
- 12 Insert a MULTI control block for the first row on the next page. Proceed as before, beginning with step 6, to enter text for the new page.

For example, the MULTI control blocks, ruler, and NEW PAGE marks shown here produce a multicolumn table with two rows and three columns per page.

```
----- START CONTROL -----  
MULTI  
3  
----- END CONTROL -----  
---L-----R-----  
    This text prints in  
    the first row, first  
    column.  
  
----- NEW PAGE -----  
    This text prints in  
    the first row, second  
    column.  
  
----- NEW PAGE -----  
    This text prints in  
    the first row, third  
    column.  
  
----- NEW PAGE -----  
    This text prints in  
    the second row, first  
    column.
```

(continued)

Control Blocks

```
----- NEW PAGE -----
  This text Prints in
  the second row, second
  column.

----- NEW PAGE -----
  This text Prints in
  the second row, third
  column.

----- START CONTROL -----
MULTI

----- END CONTROL -----
----- NEW PAGE -----
----- START CONTROL -----
MULTI
3
----- END CONTROL -----
  This text Prints in
  the first row on the
  second page, first
  column.

----- NEW PAGE -----
  This text Prints in
  the first row on the
  second page, second
  column.

----- NEW PAGE -----
  This text Prints in
  the first row on the
  second page, third
  column.

----- NEW PAGE -----
*
*
*
*
```


Paginating Multicolumn Documents

To paginate a multicolumn document:

- 1 Count the number of lines in the longest entry in each row of your table, including blank lines. You can also press Gold STATUS to help count the number of lines in long columns. See Chapter 1 for more information about Gold STATUS.
- 2 Add the number of lines in these entries until their cumulative total exceeds the number of lines you want a page to have.
- 3 Place a NEW PAGE mark before the last row whose line total you added in.

NOTE: Until you are familiar with multicolumn printing, you should test your layout before final printing. Print a preliminary copy of your document to see if you have obtained the desired results. If not, adjust page markers as needed.

Editor Math

This chapter explains how to use WPS-PLUS Editor Math to:

- Add, subtract, multiply, and divide numbers in your document
- Total and subtotal columns of numbers
- Compute averages
- Format your results

List Processing Math does calculations based on the information in list documents. For information about List Processing Math, see *WPS-PLUS List and Sort Processing*.

Editor Math Areas and Editor Math Control Blocks

Editor Math operates only on numbers it finds inside Editor Math areas. An Editor Math area starts with a BEGIN command and ends with an END command. These commands, like all other Editor Math commands, must be in Editor Math control blocks.

Like other control blocks, Editor Math control blocks appear on your screen but are not printed. See Chapter 12 for more information about control blocks.

An Editor Math area looks like the following:

```

----- START CONTROL -----
WPSMATH
BEGIN
FORMULA  <:D1> + <:D2> = <:D3>
----- END    CONTROL -----
L-----T-----T-----T-----R
Item          In stock      Received      In stock
              last month    this month    this month

L-----T-----T-----T-----R
First          10             4             14
Second         8              3             11
Third         45             14             59
----- START CONTROL -----
WPSMATH
END
----- END    CONTROL -----

```

NOTE: *Never put blank lines in an Editor Math control block. If you do, WPS-PLUS displays an error message.*

BEGIN Control Blocks

To begin an Editor Math area:

 Create a BEGIN control block.

To create a BEGIN control block:

- 1 Press Gold CMND.
- 2 Type WPSMATH.
- 3 Press RETURN.
- 4 Type the word BEGIN.
- 5 Press RETURN.

- 6 Enter any other Editor Math commands you wish.
- 7 Press Gold CMND again.

Table 13-1 lists all the Editor Math commands.

Table 13-1 Editor Math Control Block Commands

Use	To
WPSMATH BEGIN	Begin an Editor Math area. A BEGIN control block usually contains other Editor Math commands, such as FORMULA commands.
WPSMATH END	End an Editor Math area. An END control block cannot contain any other Editor Math commands.
FORMULA	Begin an Editor Math equation. See the section The FORMULA Command.
SET	Add subtotals, reset total fields, or transfer values from one field to another. See the section Subtotals and Accumulators.
WPSMATH TOTAL	Show where a total should be printed.
ROUND	Round Editor Math results to the sixth decimal point or according to a format string. Because Editor Math rounds off numbers by default, use this command only after a TRUNCATE command.
TRUNCATE	Truncate numbers to the sixth decimal place or according to a format string.

END Control Blocks

To end an Editor Math area:

Use an END control block.

An END control block turns Editor Math off. Editor Math also stops calculating when you move the cursor in a backward direction.

To create an END control block:

- 1 Press Gold CMND.
- 2 Type WPSMATH.
- 3 Press RETURN.
- 4 Type END.
- 5 Press RETURN.
- 6 Press Gold CMND.

An END command must be the only command except for the WPSMATH command in its control block

How Editor Math Works

Editor Math is enabled when you set the MA (Set math option) setting at the Editor Menu to Y.

To enable Editor Math:

- 1 Press Gold MENU.
The Editor Menu appears.
- 2 Enter MA.
- 3 Enter Y.
- 4 Enter OK to return to the WPS-PLUS Editor.

Editor Math is enabled until you turn it off.

Editor Math starts calculating when you move the cursor forward through a BEGIN control block. When you move through a line where an answer should go, Editor Math does the calculation and displays the answer in the document when you move to the next line. When you move the cursor upward, Editor Math is turned off. To restart Editor Math, return the cursor to the top of the BEGIN control block and move the cursor downward again.

After editing an Editor Math control block or a table of numbers, back up to the top of the BEGIN control block and scroll through the Editor Math area. This makes Editor Math rework its calculations using the new commands or new numbers.

The FORMULA Command

Use FORMULA commands to tell Editor Math which calculations to perform. You can:

- Put the first set of FORMULA commands in the BEGIN control block
- Put any number of FORMULA commands in a control block
- Have more than one control block with FORMULA commands in your Editor Math area

Here is a sample control block of FORMULA commands:

```
----- START CONTROL -----
WPSMATH
BEGIN
FORMULA    <:D1> + <:D2> + <:D3> = <:D4>
FORMULA    <:D1> - <:D3> = <:D5>
FORMULA    <:D3> / <:D4> = <:D6>
----- END      CONTROL -----
```

To insert a FORMULA command in a control block:

- 1 Type the word FORMULA.
- 2 Type at least one space.
- 3 Type an equation.
- 4 Press RETURN.

An equation is made up of field names and mathematical symbols like the ones in the previous example. See the section Tab Positions and Field Names.

If your equation is too long for a single line, let it wrap to the next line. Editor Math reads both lines as a single command. Do not press RETURN unless you want to begin a new Editor Math command. When Editor Math encounters a RETURN, it expects to find a new command or the end of the control block.

As you scroll through an Editor Math area, Editor Math:

- Does calculations in the order in which the formulas appear in the Editor Math area.
- Applies every equation in the control block to the table that follows.
- Stops calculating with the equations of the previous control block and starts calculating with the new equations when a new Editor Math control block is encountered.
- Gives you an error message if there is an error in your formula control block. Press RETURN to edit the command.

Tab Positions and Field Names

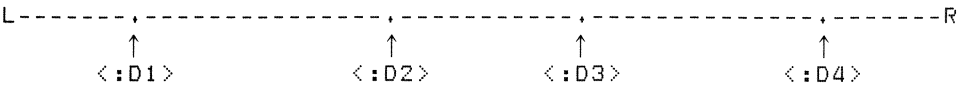
Editor Math looks for numbers to use in calculations and writes answers at decimal-aligned tab positions. You must use a ruler with decimal-aligned tabs. See Chapter 3 for more information on decimal-aligned tabs.

Field names tell Editor Math where to get input numbers and where to place answers. Each column in an Editor Math area must have a corresponding field name.

To create an Editor Math field name:

- 1 Type <:D, a number, and >. For example, <:D2>.
- 2 Assign a new field name for each decimal-aligned tab in the ruler.

The number in a field name indicates which tab position the field name represents. In the following example, <:D1> refers to the first decimal-aligned tab in the ruler, <:D2> refers to the second decimal-aligned tab in the ruler, and so on.



Allowable Characters

Besides field names, the only characters allowed in Editor Math equations are those shown in Table 13-2.

Table 13-2 Allowable Characters

Character	Description
0 1 2 3 4 5 6 7 8 9	Numerals, used to write constants. Constants are numbers that do not change from one line of a table to the next, as field values usually do.
.	Decimal point, which can be used to write constants.
\$	A dollar sign, indicating money.
+	A plus sign, indicating addition or positive numbers.
–	A minus sign, indicating subtraction or negative numbers.
*	An asterisk, indicating multiplication.
/	A slash, indicating division.
()	Parentheses, used to group operations together. The parentheses must always match; for every right parenthesis,), there must be exactly one left parenthesis, (. There must be no empty pairs, ().
=	An equals sign indicating the end of the calculation. Every equation must contain only one equals sign. Do not put + – * / (or) on the right side of an equals sign. Instead, you must follow the equals sign with the name of the location where you want the answer to go.
	A space or TAB. You can use spaces or tabs in a FORMULA command. Editor Math ignores them, but they can make equations easier to read. Do not put extra spaces in a field name, or Editor Math will not recognize the name.

Addition

The next example shows how to use Editor Math to compute numbers in an inventory chart. In this example, <:D1> is In stock last month, <:D2> is Received this month, and <:D3> is In stock this month:

```

----- START CONTROL -----
WPSMATH
BEGIN
FORMULA  <:D1> + <:D2> = <:D3>
----- END   CONTROL -----
L-----T-----T-----T-----R
Item          In stock      Received      In stock
              last month    this month    this month

L-----,-----,-----,-----R
First          10             4             14
Second         8              3             11
Third          45            14             59
----- START CONTROL -----
WPSMATH
END
----- END   CONTROL -----

```

The FORMULA command in the BEGIN control block tells Editor Math to add the number in <:D1> to the number in <:D2> and put the answer in <:D3>. Type numbers in the first two columns, and Editor Math calculates the third column when you scroll through the Editor Math area.

To create this screen:

- 1 Create a BEGIN control block and include the FORMULA command to tell Editor Math which calculation to perform.
- 2 Create and embed a ruler with three left-justified tabs.
- 3 Type your table headings, using the TAB or space bar to position each heading.
- 4 Create and embed a ruler with three decimal-aligned tabs.
- 5 Type the first item name.
- 6 Press TAB.

- 7 Type the number 10.
- 8 Press TAB.
- 9 Type the number 4.
- 10 Press RETURN.
- 11 Type numbers for the first and second columns in the second and third rows, pressing RETURN after each row.
- 12 Create an END control block.
- 13 Move the cursor to the top of the BEGIN control block and scroll through the Editor Math area.

Editor Math puts the results in the last column.

Editor Math performs calculations only on lines ending with RETURNS. If you do not press RETURN at the end of a line, Editor Math does not make any calculations for that line.

Subtraction

Suppose items were sold this month, but not received. You would subtract the number sold from the initial inventory to find how many remain.

The example would look the same as the addition example, except the FORMULA would be:

```
FORMULA <:D1> - <:D2> = <:D3>
```

Different Order for Columns

In the previous example, Editor Math calculated the values for the last column of the table. However, Editor Math can put the values in any column, so long as all necessary input numbers are in the line.

In the next example, the columns are in a different order. The new order of field names matches the new order of the headings:

```
----- START CONTROL -----
WPSMATH
BEGIN
FORMULA    <:D1> + <:D3> - <:D4> = <:D2>
----- END    CONTROL -----
L-----T-----T-----T-----R
Item        In stock   In stock   Received   Sold
            last month this month   this month this month

L-----,-----,-----,-----R
First       10         12         4         2
Second      8         6         3         5
Third       45        44        14        15
----- START CONTROL -----
WPSMATH
END
----- END    CONTROL -----
```

Type numbers in the first, third, and fourth columns of each row. Editor Math puts the answer for each row in the second column when you scroll through the area.

Negative Numbers

Unless you specify parentheses or a trailing minus sign, the minus sign for a negative number appears before the number. For example: -23.

Constants

A constant is any number written in the control block. Since a constant is part of the control block, its value does not change from one line to the next. You can add, subtract, multiply, or divide by a constant. A constant can be negative or positive, a whole number, or a fraction.

The constant in this FORMULA command is 2:

```
FORMULA    <:D2> - 2 = <:D4>
```

Multiplication and Division

The procedures for setting up a control block to do multiplication and division are the same as for addition and subtraction.

Here is a sample multiplication FORMULA:

```
FORMULA <:D1> * <:D2> = <:D3>
```

Here is a sample division FORMULA:

```
FORMULA <:D1> / <:D2> = <:D3>
```

If the answer to an equation is not a whole number, Editor Math writes out the remainder as a decimal fraction, carrying the number to as many as six decimal places, if necessary. For example, it writes out 0.5 for one-half and 0.333333 for one-third.

You cannot divide by zero. If you accidentally call for division by zero, Editor Math displays an error message. Edit the control block or the table to remove the division by zero.

Totals and Averages

To total all the numbers in a given column:

Use the TOTAL command with special fields to receive the totals.

Total fields have names written <:T1>, <:T2>, <:T3>, and so on. The names for total fields are like decimal tab names, but total fields contain a capital T (for total) instead of a D (for decimal).

As with decimal field names (for example, <:D3>), the number in the total field name matches the number of the tab position where the total will be written, counting from left to right.

Here is a sample FORMULA command for calculating a one-column total:

```
FORMULA <:T1> + <:D1> = <:T1>
```

Notice that $\langle:T1\rangle$ appears twice, once on each side of the equals sign (=). The $\langle:T1\rangle$ on the left side of the equals sign is the old value of the total, before Editor Math adds in $\langle:D1\rangle$. The $\langle:T1\rangle$ on the right side is the new value of the total, after $\langle:D1\rangle$ has been added. When Editor Math calculates the total, it uses the most recent value of $\langle:T1\rangle$.

The line where totals are written is called the TOTAL line. The TOTAL line is the line below the control block containing the TOTAL command. Here is a sample control block, showing a TOTAL command:

```
----- START CONTROL -----
WPSMATH
TOTAL
----- END    CONTROL -----
```

As with BEGIN control blocks and END control blocks, you include the word WPSMATH in a TOTAL control block, before the TOTAL command.

NOTE: *Editor Math adds to the total fields every time it moves from the beginning of a BEGIN control block forward through a line with numbers to be totaled. If you are retotaling, you can use the SET command to set total fields to zero in the BEGIN control block. See the section Subtotals and Accumulators.*

One-Column Totals

The simplest total to make is a single-column total:

```

----- START CONTROL -----
WPSMATH
BEGIN
FORMULA    <:T1> + <:D1> = <:T1>
----- END    CONTROL -----
L-----R
          45
          44
           1
        108.5
          12
           5.3
          70
        30.2
           4
----- START CONTROL -----
WPSMATH
TOTAL
----- END    CONTROL -----
Total          320.
----- START CONTROL -----
WPSMATH
END
----- END    CONTROL -----

```

The total, 320, appears as soon as you move the cursor past the TOTAL line.

Editor Math always writes the total on the first line following the TOTAL command's control block, so allow space for the answer by leaving a blank line after the TOTAL command control block.

Multiple Column Totals

The following example shows how to total several columns of numbers:

```
----- START CONTROL -----
WPSMATH
BEGIN
FORMULA    <:D1> * <:D2> = <:D3>
FORMULA    <:D2> + <:T2> = <:T2>
FORMULA    <:D3> + <:T3> = <:T3>
----- END CONTROL -----
L-----T-----T-----T-----R
Item          Number of      Number of      Number of
              items per set   sets sold     items sold

L-----T-----T-----T-----R
First          10              14             140
Second         12              10             120
Third          20              9              180
Fourth         15              3              45
Fifth          10              11             110
Sixth          10              8              80
----- START CONTROL -----
WPSMATH
TOTAL
----- END CONTROL -----
TOTAL          55              675
----- START CONTROL -----
WPSMATH
END
----- END CONTROL -----
```

Notice that the top control block does not contain <:T1>. That is because the <:D1> column is not totaled.

Subtotals and Accumulators

Editor Math can calculate subtotals, but you must tell Editor Math to keep a record of the grand total at the same time. Do this by storing the grand total in an accumulator, a field that stores running totals. You can use the accumulator to store numbers you need to calculate but do not want to write out until later, if at all.

Observe these restrictions when assigning a name to an accumulator:

- The name must start with a left angle bracket and colon (<:), and end with a right angle bracket (>).
- The name must not look like a decimal tab field name or a total field name (such as <:D1>, <:T1>, <:D2>, and so on).
- The name must not contain a RETURN.

Except for these restrictions, you can name an accumulator anything you like. <:1>, <:A>, <:total>, and <:sum> are typical accumulator names. Use the same accumulator name each time.

If you want to see the values in an accumulator, you must transfer the accumulator's value to a tab field, such as <:D1> or <:T1>. Do this with a SET command.

NOTE: Do not scroll through a SET command while Editor Math is working, unless you want Editor Math to perform the SET calculation.

Three common uses for the SET command are:

- Summing subtotals
- Resetting total fields
- Transferring numbers from one field to another

The next example illustrates all three uses. An explanation follows the example.

```

----- START CONTROL -----
WPSMATH
BEGIN
FORMULA    <:T1> + <:D1> = <:T1>
----- END    CONTROL -----
L-----T-----,-----R
North
      First      25
      Second     40
      Third      10
      -----
----- START CONTROL -----
WPSMATH
SET    <:T1> = <:grand total>
TOTAL
----- END    CONTROL -----
North total      75
----- START CONTROL -----
WPSMATH
SET    0 = <:T1>
FORMULA    <:T1> + <:D1> = <:T1>
----- END    CONTROL -----
South
      First      15
      Second     35
      Third      45
      -----
----- START CONTROL -----
WPSMATH
SET    <:grand total> + <:T1> = <:grand total>
TOTAL
----- END    CONTROL -----
South total      95
----- START CONTROL -----
WPSMATH
SET    <:grand total> = <:T1>
TOTAL
----- END    CONTROL -----
Grand total      170
----- START CONTROL -----
WPSMATH
END
----- END    CONTROL -----

```

In the previous example, the SET command was used for:

- Summing subtotals. Notice the SET commands and the accumulator <:grand total>. After Editor Math has calculated each subtotal (North total or South total), a SET command adds the subtotal to <:grand total>.
- Setting fields to constants. In the control block before the South list, a SET command resets the value of <:T1> to zero.
- Transferring numbers. After the South subtotal is calculated, another SET command transfers the number in <:grand total> to <:T1>. The number in <:T1> is then written out by means of a TOTAL command. This step is necessary because Editor Math cannot write out the numbers in accumulators.

NOTE: The FORMULA command is repeated before each subtotal. This is because Editor Math cancels all old equations as soon as it comes to a new control block. You must repeat any calculations that you want to continue.

When printed in a document, the table looks like this:

North		
	First	25
	Second	40
	Third	10
North total		75
South		
	First	15
	Second	35
	Third	45
South total		95
Grand total		170

Column Bars

You can place a bar under each column of numbers to be totaled. If you do, use the space bar to position each column bar. In the previous example, column bars were placed under the column of North figures and under the column of South figures.

When printed, the Editor Math part of the document looks like this:

North	
First	25
Second	40
Third	10
North total	<u>75</u>

Averages

When you do not know in advance the number of lines in a table, Editor Math can keep track of this number with a special accumulator. The field name for this accumulator is `<:lines>`.

The following command adds one to the accumulator every time Editor Math comes to a new line in the table:

```
FORMULA <:lines> + 1 = <:lines>
```

If you use column headings, add them before the control block containing the FORMULA commands. Otherwise Editor Math counts those lines too, and your average will be wrong.

In the next example, you use the accumulator to store the number of lines, then use this number to calculate the average:

```

L-----T-----T-----T-----R
Item      Number of      Number of      Number of
           items Per set   sets sold      items sold

----- START CONTROL -----
WPSMATH
BEGIN
FORMULA   <:D1> * <:D2> = <:D3>
FORMULA   <:D2> + <:T2> = <:T2>
FORMULA   <:D3> + <:T3> = <:T3>
FORMULA   <:lines> + 1 = <:lines>
----- END CONTROL -----
L-----,-----,-----R
First      10              14              140
Second     12              10              120
Third      20              9               180
Fourth     15              3               45
Fifth      10              11              110
Sixth      10              8               80
----- START CONTROL -----
WPSMATH
TOTAL
----- END CONTROL -----
Total              55              675
----- START CONTROL -----
WPSMATH
SET   <:T3> / <:lines> = <:T1>
TOTAL
----- END CONTROL -----
L-----,-----R
                                           Average = 112.5
----- START CONTROL -----
WPSMATH
END
----- END CONTROL -----

```

Notice the equation $\text{<:T3> / <:lines> = <:T1>}$, which calculates the average. This equation must be in the third control block. If the equation were in the first or second control block, the <:T3> tab would be used to hold two numbers at once — the average and the total. Both numbers would be lost.

Parentheses

WPS-PLUS follows the accepted rules of mathematics and performs multiplication and division first, then addition and subtraction.

However, you can use parentheses to group mathematical operations. If any of the operations in an equation are inside parentheses, Editor Math performs those first. This can make a difference in the answers you get.

NOTE: Always put in exactly one left parenthesis, (, for every right parenthesis,).

Default Format

Unless you tell it otherwise, Editor Math always writes numbers in the same way, called default format. These are the rules for default format:

- Dollar signs and commas are not allowed.
- If a number is negative, a minus sign is in front of the number.
- If the number is not a whole number, the number contains a decimal point and digits for the fractional part.
- No zeros are displayed after the last nonzero digit of a decimal fraction.
- Numbers can have a maximum of 13 digits. Up to six of those digits can follow the decimal point. The sixth digit after the decimal point is not rounded off.

All examples so far have used default format. You may need to use a different format. For instance, an answer written in default format may be too long to fit into the space you have allowed in the ruler.

Customized Format

When you need to specify the format of your answers, include a format string. The customized format characters you can include in a format string are $- () \$ * , .$ and 9. For example, the format string in the following command tells Editor Math to include one decimal digit in its answer:

```
FORMULA <:D2> + <:T2> = <:T2> "99.9"
```

When you use format characters:

- Put format characters after the equation in a SET or FORMULA command.
- Enclose a string of format characters in quotation marks.
- Use $- () \$.$ or $*$ no more than once in a format string.

Currency

If you include the dollar sign (\$) at the beginning of your format string, Editor Math puts a dollar sign in front of the answer. The minus sign (−) is the only allowable character that can precede the dollar sign.

Decimal Places

Decide on the highest number of digits you need to have on the right of the decimal point, then use that number of 9s after the decimal point in your format string. You can have a maximum of thirteen 9s, of which up to six can be to the right of the decimal point. Do not use any other numerals. For example:

```
FORMULA <:D1> * <:D2> = <:D3> "$9.99"
```

The example tells Editor Math to:

- Write no more than two digits after the decimal point
- Place a dollar sign (\$) in front of the answer

Decimal Fractions

You can drop some decimal digits by including fewer 9s after the decimal point than the full answer requires. By default, Editor Math rounds its answer off to as many decimal places as there are 9s after the decimal point, up to five decimal places.

You can leave off all decimal digits and round answers to the nearest integer by using the format “9.” or “9”.

In default format, decimal fractions are written with one zero in front of the decimal point, and trailing zeros are not written. As a result, one-half is written as 0.5. To avoid displaying the initial zero, specify the format “.9”.

Trailing Minus Sign

A trailing minus sign tells Editor Math to put the minus sign after a negative number instead of before it. In a format string, a trailing minus sign must be the last symbol before the closing quotation mark. Examples of the trailing minus format are:

"9999.99-"

"999,999-"

"\$99,999.99-"

Parentheses

In a format string, parentheses tell Editor Math to write negative numbers in parentheses instead of with a minus sign. Make parentheses the first and last symbols after the equation, except for quotation marks. Examples of parentheses format are:

"(\$999.99)"

"()"

"(*,999999)"

Notice that you do not have to use 9s for parentheses format. If you include just “()” as your format string, Editor Math writes its answers in default format, except that it uses parentheses instead of a leading minus sign to indicate negative numbers.

Commas

If you deal with very large numbers, use commas to group digits for easier reading. The commas must come after any dollar signs and before the decimal point.

One comma is all you need. The following examples all give the same result:

"\$9,999,999.99"

"\$,9,99"

"\$9 ,.99"

When you are not dealing with money, you can use “,” alone to format your answers. Editor Math writes the answers in default format, but with a comma before every third digit to the left of the decimal point.

Asterisks

To fill out a column of numbers with asterisks so the left edge of the column is even:

Put one asterisk after any dollar sign and before any commas or 9s.

If you use asterisks, tell Editor Math how many numerals to expect. Put in as many 9s as there are digits and commas in the largest result you expect. For example:

FORMULA <:D1> * <:D2> = <:D3> "\$*9,999,999.99"

When displayed, the list of results is left-justified:

L-----,-----,-----R
\$2100.00 1500 \$3,150,000.00
\$1250.25 512 \$**640,128.00
\$8.98 12,000 \$**107,760.00
\$75.00 200 \$***15,000.00

Notice that Editor Math puts asterisks in place of commas as well as numbers.

Truncation and Rounding Off

By default, Editor Math rounds off numbers. If you want Editor Math to truncate numbers instead of rounding off, use the TRUNCATE command. Truncation simply drops extra digits. If Editor Math were to truncate 0.796 in a “9.99” format string, it would write out 0.79.

Type the TRUNCATE command in a control block on a line by itself on any line after the word WPSMATH. For example:

```
----- START CONTROL -----  
WPSMATH  
FORMULA    <:D1> / 10 = <:D3>  
TRUNCATE  
FORMULA    <:D2> * 10 = <:D4> "9.99"  
----- END    CONTROL -----
```

If the answer in <:D4> was 9.768, it would print as 9.76. If another Editor Math control block is encountered and that control block contains a ROUND command, rounding is resumed. Otherwise, Editor Math will TRUNCATE answers until a ROUND command is encountered.

Always give a separate line to a TRUNCATE or ROUND command. Use only one of the commands in a control block. If you use both, Editor Math uses the last one in the block.

Suppressing Calculations

Editor Math always applies all its FORMULA commands to every line of the table. If you do not want Editor Math to perform a certain calculation on a line, you can prevent that by not giving Editor Math enough information.

Suppose Editor Math has the equation $\text{<:D1>} + \text{<:D2>} = \text{<:D3>}$ in its control block. If you type in the value for <:D1>, but go to the next line without typing in a value for <:D2>, Editor Math does not write in a value for <:D3>.

Improving Readability

If you have several calculations to perform, you can do different calculations on different lines by specifying more than one formula, each having its own field names.

For example:

```
----- START CONTROL -----
WPSMATH
BEGIN
FORMULA  <:D1> * <:D3> = <:D5>    "$,9.99"
FORMULA  <:D2> + <:D4> = <:D6>    "$,9.99"
----- END   CONTROL -----
L-----T---T-----T-----T-----T-----T-----R
Item
      Number made   Cost/item           Total cost
      Foreign sales Domestic sales   Total sales
L-----,-----,-----,-----,-----,-----R

First
      100           $21.50           $2,150.00
      $1570.00           $1600.00           $3,170.00

Second
      200           $10.00           $2,000.00
      $1800.00           $1050.00           $2,850.00

Third
      240           $11.50           $2,760.00
      $2055.00           $2070.00           $4,125.00

----- START CONTROL -----
WPSMATH
END
----- END   CONTROL -----
```

FORMULA Command Checklist

To avoid making formula notation errors, or to correct them, make sure that:

- The characters $+$ $-$ $*$ $/$ and $=$ are always followed by field names, constants, or text in parentheses, ().
- All field names, constants, and pieces of text in parentheses, (), are separated from their neighbors by $+$ $-$ $*$ $/$ or $=$.
- There is exactly one right parenthesis,), for every left parenthesis, (.
- There is a RETURN at the end of every equation, or, if there is a format string, at the end of the format string.
- There is exactly one equals sign, $=$, in every FORMULA and SET command, with exactly one field name after it.
- The commands WPSMATH, TRUNCATE, BEGIN, END, TOTAL, and ROUND each have a line to themselves.
- Every field name starts with $<:$ and ends with $>.$
- The only characters in constants are 0 1 2 3 4 5 6 7 8 9 , $+$ $-$. and \$.
- The characters $+$ $-$. \$ and () appear no more than once in any constant, in the correct place.
- Commas do not appear at the beginnings of numbers, unless that number is a constant.
- No constant has more than 13 digits, or more than 6 digits to the right of the decimal point.
- The command does not end too soon. Make sure there is an equals sign, $=$, a constant, or a complete field name to the left of the equals sign, and a complete field name to the right of the equals sign.

Format Checklist

To avoid making errors and to correct errors in format strings, make sure that:

- The only characters in format strings are $- () \$ * , . 9$.
- The characters $- () \$ * .$ appear no more than once.
- The minus sign, $-$, is either first or last, if it appears.
- Parentheses, $()$, and the minus sign, $-$, do not appear in the same format string.
- There is exactly one right parenthesis, $)$, for every left parenthesis, $($.
- The dollar sign, $\$$, comes before everything except the minus sign, $-$, or left parenthesis, $($.
- The asterisk, $*$, comes before $9 , .)$ or a trailing minus sign, $-$.
- There are no commas after the decimal point.
- There are no more than thirteen 9s in the format string and no more than six 9s to the right of the decimal point.
- Format strings containing the characters $* + - .$ or $\$$ always contain at least one 9.
- The format string is enclosed in quotation marks.

Table Checklist

To avoid making errors and to correct errors involving numbers in tables, make sure that:

- There are no empty pairs of parentheses, $()$.
- The only characters in the field value are $0 1 2 3 4 5 6 7 8 9 + - \$ * , . ()$.
- The characters $\$. + - ()$ appear no more than once.
- The characters $\$ * + ($ appear before any digits.
- The plus sign, $+$ comes first, if it appears.

- The minus sign, $-$, is either first or last, if it appears.
- The dollar sign, $\$$, comes before any asterisk, $*$, and after the plus sign, $+$, or the minus sign, $-$.
- There is exactly one right parenthesis, $)$, for every left parenthesis, $($.
- The characters $()$ come first and last, if they appear.
- The characters $()$ and the minus sign, $-$, do not appear in the same field value.
- There are no more than 13 digits in the field value, or more than six digits to the right of the decimal point.
- The only characters directly under the decimal tab marker in the ruler are the right parenthesis, $)$, the period, $.$, or one of the following hidden characters: tab, RETURN, word wrap, paragraph marker, centering mark, end of document. You can check for the hidden characters by pressing Gold VIEW.

Paginating a Document

This chapter explains how to:

- Paginate your document automatically when you send it to print
- Paginate your document with Automatic Gold PAGE
- Paginate your document with Gold PAGE
- Adjust the page size

If you want WPS-PLUS to paginate your document according to the current print settings, use automatic pagination.

If automatic pagination does not provide the page breaks you want, use one or more of the other pagination methods described in this chapter.

Automatic Pagination

When you use automatic pagination, WPS-PLUS paginates a document automatically during the printing operation. WPS-PLUS breaks pages according to the current print settings.

To use automatic pagination:

- 1 Display the Print Settings Menu.
- 2 Set the Auto Paginate setting to Y.
- 3 Print the document by following the directions on the screen.

See Chapter 4 in *WPS-PLUS on PC* for information about print settings.

Gold NEW PAGE

After printing, if you are not satisfied with the page breaks, you can force your own page breaks by using Gold NEW PAGE.

To force a new page to begin:

- 1 Edit the document.
- 2 Place the cursor where you want a new page to start.
- 3 Press Gold NEW PAGE.

Gold NEW PAGE inserts a NEW PAGE mark, forcing a new page. This allows a figure or table, for example, to print on one page instead of two.

When you print the document, WPS-PLUS paginates according to the current print settings and any NEW PAGE marks you have added. WPS-PLUS recognizes NEW PAGE marks whether you have set Auto Paginate to Y or N.

NEW PAGE marks stay in the document until you remove them manually.

To delete a NEW PAGE mark:

Move the cursor to the NEW PAGE mark and press SHIFT/DEL CHAR.

OR

Move the cursor to the character after the NEW PAGE mark and press RUB CHAR OUT.

Automatic Gold PAGE

Use Automatic Gold PAGE before you print your document to see where page breaks occur.

When you use Automatic Gold PAGE, WPS-PLUS inserts PAGE MARKERs throughout your document. Unlike NEW PAGE marks, PAGE MARKERs disappear if you:

- Change text. WPS-PLUS removes any PAGE MARKERs near the text you change.
- Insert one document into another with Gold GET DOCMT. WPS-PLUS removes all PAGE MARKERs from the inserted document. See Chapter 4.
- Repaginate a document with Automatic Gold PAGE or Gold PAGE. WPS-PLUS removes PAGE MARKERs that are not placed at intervals of the CT setting.

To insert PAGE MARKERs with Automatic Gold PAGE:

- 1 Press Gold MENU while editing a document to display the Editor Menu.
- 2 Enter PG.

Starting at the top of your document, WPS-PLUS inserts PAGE MARKERS at intervals of the CT setting, taking into account any NEW PAGE marks you have inserted with Gold NEW PAGE. See the section Adjusting Page Size.

Automatic Gold PAGE stops automatically if:

- WPS-PLUS locates an empty hyphenation zone. Use ALT/HYPH PUSH to hyphenate the word. See Chapter 7.
- The cursor reaches the bottom of the document.

To manually stop Automatic Gold PAGE:

Press ALT/INTERRUPT.

To print a document after using Automatic Gold PAGE:

- 1 Display the Print Settings Menu.
- 2 Set the Auto Paginate setting to N.
See Chapter 4 in *WPS-PLUS on PC* for information about print settings.
- 3 Print the document by following the directions on the screen.

When you set Auto Paginate to N, WPS-PLUS paginates a document according to the CT setting. You can force page breaks with either NEW PAGE marks or PAGE MARKERS.

If you set Auto Paginate to Y, WPS-PLUS does not recognize PAGE MARKERS. To force a page break at a PAGE MARKER:

- 1 Delete the PAGE MARKER with SHIFT/DEL CHAR or RUB CHAR OUT.
- 2 Move the cursor to the character after the desired page break.
- 3 Press Gold NEW PAGE.

Gold PAGE

Use Gold PAGE to paginate a document manually so the pages will break in specific places. Each time you press Gold PAGE, WPS-PLUS advances the cursor the number of lines in the CT setting and inserts a PAGE MARKER. See the section Adjusting Page Size.

To paginate your document with Gold PAGE:

- 1 Move the cursor to the top of the document.
- 2 Press Gold SHIFT/PAGE.
WPS-PLUS advances the cursor the number of lines in the CT setting and inserts a PAGE MARKER.
- 3 Continue pressing Gold SHIFT/PAGE as needed.

Gold PAGE stops automatically if:

- WPS-PLUS finds a NEW PAGE mark.
- WPS-PLUS finds a correctly located PAGE MARKER already in the document.
- WPS-PLUS locates an empty hyphenation zone. Use ALT/HYPH PUSH to hyphenate the word, then press Gold SHIFT/PAGE again. See Chapter 7. WPS-PLUS continues counting lines from where it stopped.
- The cursor reaches the bottom of the document.

To stop Gold PAGE:

Press ALT/INTERRUPT.

To restart Gold PAGE:

Press Gold SHIFT/PAGE again.

If you are not satisfied with the position of a PAGE MARKER inserted by Gold PAGE:

- 1 Delete the PAGE MARKER with SHIFT/DEL CHAR or RUB CHAR OUT.
- 2 Move the cursor backward to where you want the page break.
- 3 Press Gold PAGE MARKER to insert another PAGE MARKER.
- 4 Press Gold SHIFT/PAGE to continue.

NOTE: When you change the location of a page-end marker (NEW PAGE mark or PAGE MARKER), move the marker backward, not forward. If you move it forward, there may be too many lines between page-end markers to fit on a page.

To print a document after using Gold PAGE:

- 1 Display the Print Settings Menu.
- 2 Set the Auto Paginate setting to N.
See *WPS-PLUS on PC* for information about print settings.
- 3 Print the document by following the directions on the screen.

When you set Auto Paginate to N, WPS-PLUS paginates a document according to the CT setting. You can force page breaks with either NEW PAGE marks or PAGE MARKERS.

Summary of Pagination Methods

Table 14-1 summarizes the ways to paginate a document with WPS-PLUS.

Table 14-1 Methods of Paginating

Use	To
Gold NEW PAGE	Insert NEW PAGE marks to force new pages to begin in specific places. Use Gold NEW PAGE instead of Gold PAGE MARKER if you are using automatic pagination.
Gold PAGE MARKER	Insert PAGE MARKERS to force new pages to begin in specific places or to move PAGE MARKERS inserted by Gold PAGE or Automatic Gold PAGE. Use Gold PAGE MARKER instead of Gold NEW PAGE if you are not using automatic pagination, or if you will need to repaginate your document later.
Automatic Pagination	Paginate your document as part of the printing operation.
Automatic Gold PAGE	Insert PAGE MARKERS throughout your document at intervals controlled by the CT setting on the Editor Menu. Automatic Gold PAGE and Gold PAGE let you examine where pages break before you print.
Gold PAGE	Insert PAGE MARKERS one at a time at intervals controlled by the CT setting on the Editor Menu.

Adjusting Page Size

Two Editor Menu settings affect page size:

- CT (Set current text lines per page)
- ST (Set standard text lines per page)

Each document can have a different CT value. When you use Gold PAGE or Automatic Gold PAGE, WPS-PLUS uses the CT value to paginate the document. For example, if CT is set at 54, WPS-PLUS inserts PAGE MARKERS after every 54 lines of text when you use Gold PAGE or Automatic Gold PAGE.

The ST value is the CT value used on new documents. When you create a new document, WPS-PLUS sets the CT value of the new document equal to the value of ST. The default value for ST is 54.

To change the standard text size for new documents:

- 1 Press Gold MENU to display the Editor Menu.
- 2 Enter ST.
- 3 Enter the number of lines per page.
- 4 Enter OK to return to the Editor.

After you change the ST setting, all documents you create will use that value of ST.

To change the CT value for the current document:

- 1 Press Gold MENU to display the Editor Menu.
- 2 Enter CT.
- 3 Enter the number of lines per page.
- 4 Enter OK to return to the Editor.

The CT setting overrides the ST setting for that document only.

The Two-Dimensional Editor

This chapter explains how to:

- Create a diagram using the WPS-PLUS Two-Dimensional Editor (TDE)
- Get Help while using the TDE
- Use the TDE pen
- Enter and delete text in a diagram
- Use shading in a diagram
- Use working regions
- Select and use areas of a diagram

Before using the TDE, follow the instructions in the section Drawing a Simple Diagram. Once you have learned the steps in that procedure, use the rest of this chapter as a reference to other TDE functions.

Drawing a Simple Diagram

Figure 15-1 shows a simple diagram you can draw with the TDE.

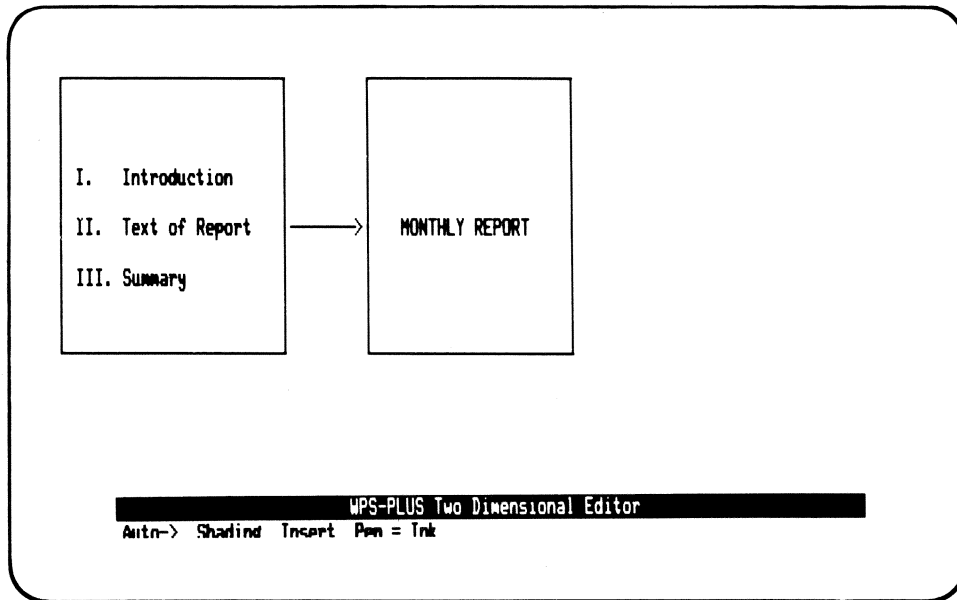


Figure 15-1 Drawing a Simple Diagram

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To draw this diagram in your document:

- 1 Press Gold TDE.

WPS-PLUS inserts START PICTURE and END PICTURE markers at the cursor position.

- 2 Press Gold TDE again.

WPS-PLUS clears the screen, except for a status line at the bottom. You are ready to create a diagram.

- 3 Press the Down Arrow key five times and the Right Arrow key twice to position the cursor for text entry.
- 4 Type the text for the first box, as shown in Figure 15-1. Use the arrow keys to position the cursor near the middle of the screen, and type the text for the second box.

If you make a mistake, use SHIFT/DEL CHAR or RUB CHAR OUT.

- 5 Press Gold TOP DOCMT to move the cursor to the top left corner of the screen.
- 6 Press SEL.

A rectangular select mark appears on the screen.

- 7 Press the Down Arrow key until the cursor is lower than the text typed for the first box.
- 8 Press the Right Arrow key until the cursor is farther right than the text for the first box.
- 9 Press TAB POS.

The TDE draws a box outline around the text and removes the select mark.

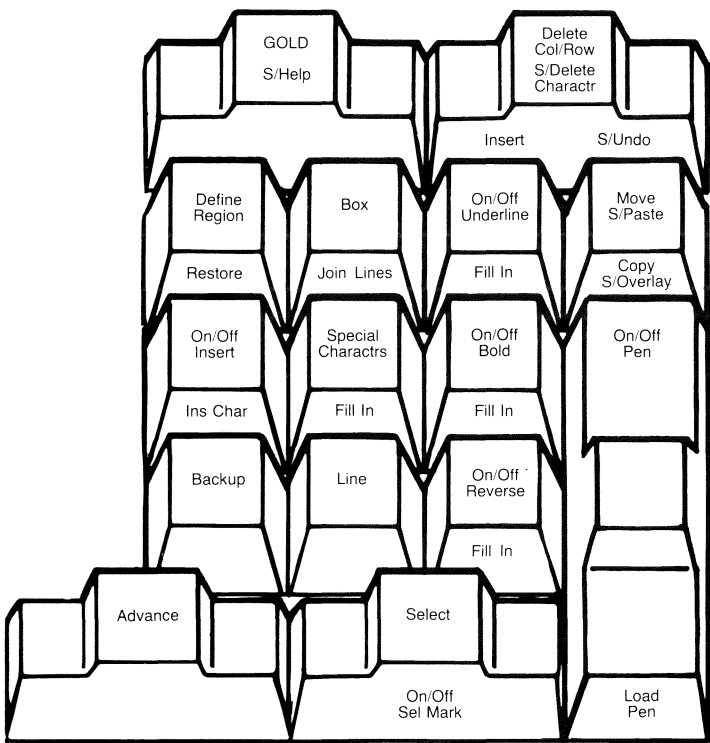
- 10 Use the same procedure to draw another box around the text for the second box.
- 11 Move the cursor to the right side of the first box (where the line between the boxes begins).
- 12 Press ENTER to turn on the pen.

On the bottom of your screen, the word Pen lights up.

- 13 Use the Right Arrow key to draw the line, leaving a space for the arrowhead.
- 14 Press ENTER to turn off the pen.
- 15 Press the Right Arrow key to move the cursor one space right.
- 16 Hold down SHIFT and type > to make the arrowhead.
- 17 Press Gold TDE to end the diagram and leave the TDE.

Two-Dimensional Editor (TDE) Function Keys

In the previous example, you used TAB POS to form a box in a two-dimensional diagram. Other keys also have alternate functions when you are using the TDE. Figure 15-2 shows the TDE functions on the keypad, and Table 15-1 lists the TDE functions on the main keyboard.



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Figure 15-2 The Two-Dimensional Editor (TDE) Keypad Functions

Table 15-1 Main Keyboard Functions in the TDE

Press	To
Gold TDE	Enter or exit the TDE and return to normal editing. To create a drawing, press Gold TDE twice.
Gold E	Erase selected areas of a diagram. See the section Deleting Diagrams and Text.
Gold numeral	Repeat keyboard functions. See the section Repeating Functions or Keystrokes.
Gold RULER	Display the TDE Ruler. See the section Using Rulers.
Gold TAB	Move the cursor to the right side of the screen.
Gold ALT/HYPH PULL	Move the cursor to the left side of the screen.
Gold TOP DOCMT	Move the cursor to the top of the screen.
Gold BOT DOCMT	Move the cursor to the bottom of the screen.
Gold Arrow keys	Change direction of the text. See the section Autodirection.
CTRL/U	Erase the line to the left of the cursor.
CTRL/W	Refresh the screen.

Entering the TDE

To create a new TDE diagram:

- 1 Press Gold TDE.
WPS-PLUS inserts START PICTURE and END PICTURE markers at the cursor position.
- 2 Press Gold TDE again.
WPS-PLUS clears the screen, except for the status line at the bottom.

To edit an existing TDE diagram:

- 1 Place the cursor at the START PICTURE marker, the END PICTURE marker, or anywhere between the markers.
- 2 Press Gold TDE.

Exiting the TDE

To exit the TDE and return to the text editor:

Press Gold TDE.

Getting Help

To display the TDE function keys:

- 1 Press Gold TDE twice to start a TDE diagram.
- 2 Press Gold H.

WPS-PLUS displays the keypad as shown in Figure 15-2.

Moving the Cursor

Table 15-2 shows the keys you can use to move the cursor in the TDE without inserting lines or text in the diagram.

Table 15-2 Cursor Keys in the TDE

Press	To
Arrow keys	Move the cursor one space in the direction of the arrow.
BACK UP	Move the cursor one space to the left.
ADVANCE	Move the cursor one space to the right.
Space bar	Same as ADVANCE.
BACK UP LINE	Move the cursor up one line.
ADVANCE LINE	Move the cursor down one line.
TAB	Move the cursor quickly to the right. The cursor moves to the next tab position, as defined by the current TDE ruler. See the section Using Rulers.
Gold TAB	Move the cursor to the right edge of the screen.
Gold ALT/HYPH PULL	Move the cursor to the left edge of the screen.
Gold TOP DOCMT	Move the cursor to the top left corner.
Gold BOT DOCMT	Move the cursor to the bottom right corner.
RETURN	Move the cursor down one line and to the left edge of the screen.

Using Rulers

Every diagram has its own ruler, independent of the text editing rulers. This ruler controls the movement of the cursor when you press the TAB key, just as a text ruler does. However, rulers for diagrams use only left-justified tabs (marked with reverse video blocks), not left or right margin settings. The ruler in a newly created diagram has a tab marker every eight columns.

To change or view the tab positions in the ruler of the current diagram:

Press Gold RULER.

WPS-PLUS displays the current ruler at the bottom of the screen. Table 15-3 lists the keys you can use to make changes in the TDE ruler.

Table 15-3 Keys Used in the TDE Ruler

Press	To
Right or Left Arrow key	Move the cursor right or left in the ruler.
TAB	Move the cursor to the next tab position.
Down Arrow key	Set a tab.
Up Arrow key	Clear a tab.
DEL WORD	Clear all tabs.
Gold SEL	Reset the ruler to the default tab positions — one every eight spaces.
RETURN	File the ruler and return to the diagram.

Using the Pen

To turn on the pen:

Press ENTER.

On the status line at the bottom of the screen, the word **Pen** is bolded. When you use the pen for the first time, WPS-PLUS draws a continuous line as you move the cursor with the arrow keys.

To turn off the pen:

Press ENTER again.

Loading the Pen

To draw a diagram, the pen must be loaded. You can load the pen with any character, an eraser, or shading. When the pen is loaded, the cursor leaves a continuous trail behind it as it moves. By default, the pen is loaded with ink, so the pen creates a continuous line when you move the cursor.

To load the pen:

- 1 Press Gold ENTER.
- 2 Press one of the keys listed in Table 15-4.

Table 15-4 Keys Used to Load the TDE Pen

Press Gold ENTER, then	To Load	Description
PASTE	Ink	The word Ink appears next to the word Pen at the bottom of the screen. The pen draws vertical and horizontal lines on the screen when you use the arrow keys.
SHIFT/DEL CHAR	Eraser	The word Eraser appears next to the word Pen at the bottom of the screen. The pen erases text and diagrams when you use the arrow keys.
CUT, then the shading key you want to use	Shading	The word Shading appears next to the word Pen at the bottom of the screen. There are three types of shading you can use. See the section Shading.
A main keyboard character	Main keyboard character	The character you choose appears next to the word Pen at the bottom of the screen. The pen draws a continuous line of that character when you use the arrow keys.
The special character you want to use	Special characters	The special character you choose appears next to the word Pen at the bottom of the screen. The pen draws a continuous line of special characters when you use the arrow keys. See the section Special Characters.
Gold SHIFT/PASTE	Overlay Ink	The word Over _ Ink appears next to the word Pen at the bottom of the screen. The pen draws vertical and horizontal lines on the screen when you use the arrow keys, but when you draw a line over an existing line, the new line does not join up with the old one. See the section Joining Lines in Areas.

Entering Text

You can enter and edit text as well as diagrams when using the TDE. However, some additional features are available when you enter text in the TDE. See the section **Overstrike and Insert Modes** and the section **Autodirection**.

You can also copy text from the text editing area of the current document or from another document into the drawing. You can use:

- Cut and paste. See Chapter 3 for more information about moving text.
- Abbreviation and library documents. See the section **Using Gold LIBRY and Gold ABBRV**.

Overstrike and Insert Modes

You can enter text in overstrike mode or in insert mode. By default, you start out in overstrike mode.

To insert characters and shift existing characters to the right (insert mode):

Press **WORD**.

The word **Insert** is bolded on the status line at the bottom of the screen.

To return to overstrike mode:

Press **WORD** again.

Autodirection

Normally you enter text from left to right, but in the TDE, you can enter text in any direction you choose. The arrow key next to the word **Auto** on the status line indicates text direction. When you start a diagram, the direction is left to right and the status line reads **Auto->**.

Most character-entry and character-erasure functions change direction when you change the autodirection setting. For example, if you press the RUB CHAR OUT key with Auto- $\vee$, the cursor moves up to erase the last character you typed.

Table 15-5 lists the TDE functions that change direction when you change the autodirection setting.

Table 15-5 TDE Functions Affected by Autodirection

Function	For More Information
Text entry	See the following example.
Copy area	See the section Copying Areas Within Diagrams.
RUB CHAR OUT	See the section Deleting Diagrams and Text.
SHIFT/DEL CHAR	See the section Deleting Diagrams and Text.
Inserting a column or row	See the section Inserting a Column or Row.
Deleting a column or row	See the section Deleting Diagrams and Text.
CTRL/U	See the section Deleting Diagrams and Text.

To enter text in a different direction:

- 1 Press Gold.
- 2 Press the arrow key for the direction you want.

For example, to enter vertical text:

Press Gold Down Arrow.

The status line reads Auto-v. As you type, text moves down the screen:

Y	A	V	L
O	P	E	I
U	P	R	N
R	E	T	E
	A	I	S
T	R	C	.
E	S	A	
X		L	
T	I		
	N		

If you press Gold Left Arrow (←), the status line reads Auto-< and the text moves from right to left. If you press Gold Up Arrow (↑), the text moves from bottom to top and the status line reads Auto-^.

Inserting a Column or Row

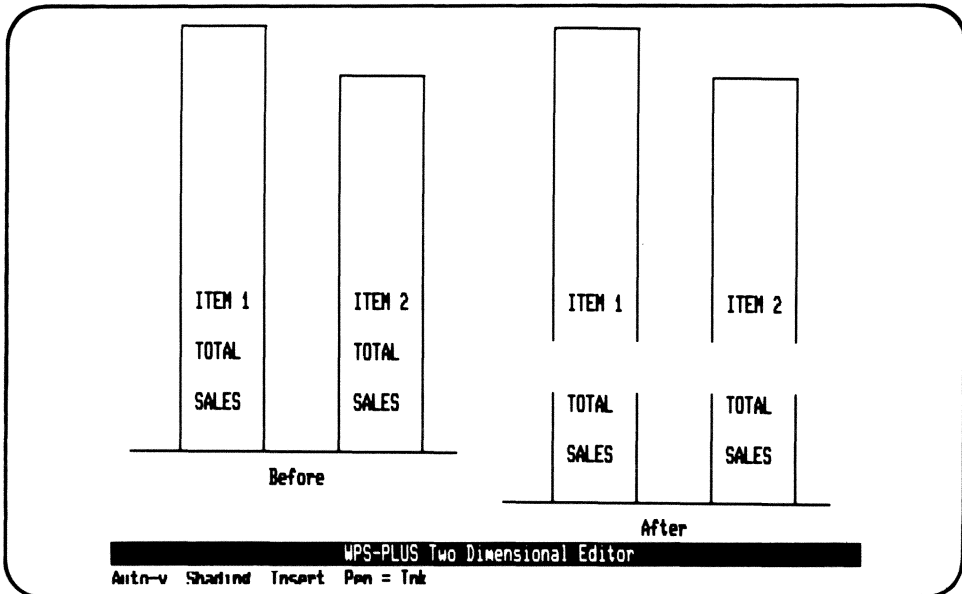
To open an empty column:

- 1 Set the Auto setting at the bottom left corner of the screen to Left or Right.
See the section Autodirection.
- 2 Press Gold DEL WORD.

To open an empty row:

- 1 Set the Auto setting in the bottom left corner of the screen to Up or Down.
See the section Autodirection.
- 2 Press Gold DEL WORD.

For example, in Figure 15-3, the Auto setting is set to Down. When you press Gold DEL WORD, a row is opened up between the words ITEM 1 and the word TOTAL. Another row of text can now be added to the diagram.



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Figure 15-3 Inserting a Row in a Diagram

Deleting Diagrams and Text

To delete a line:

Press CTRL/U.

WPS-PLUS deletes the line before, after, above, or below the cursor, depending on the autodirection setting. See the section Autodirection.

To correct small mistakes:

Use SHIFT/DEL CHAR and RUB CHAR OUT.

NOTE: *Deleting a character at the cursor pulls the rest of the line toward the cursor.*

For example:

Before: Paris in thre sPring

After: Paris in the sPring

To delete a column or line:

- 1 Place the cursor anywhere in the column or line.
- 2 Press DEL WORD.

If the Auto setting on the status line of the screen reads -> or -<, the column is deleted. If the Auto setting reads -^ or -v, the line is deleted. See the section Autodirection.

To delete a selected area:

Press Gold E.

WPS-PLUS erases all characters in the selected area and removes the select mark. See the section Using Selected Areas.

To delete an entire diagram while you are not in the TDE:

- 1 Move the cursor immediately above the START PICTURE marker.
- 2 Press SEL.
- 3 Move the cursor to the line below the END PICTURE marker.
- 4 Press CUT.

The Undo Command

To undo your last action:

Press Gold SHIFT/DEL CHAR.

For instance, if you erased a line by mistake, you can get the line back by pressing Gold SHIFT/DEL CHAR.

NOTE: You can undo only your last action. If you erase two lines, you can restore the second line, but not the first.

You can also undo other functions, such as shading and copying.

Drawing Boxes

You can draw boxes using the pen function, but you can also use the box function, which is faster.

To draw a box:

- 1 Place the cursor where you want one corner of the box to go.
- 2 Press SEL.
- 3 Place the cursor where you want the opposite corner of the box.
- 4 Press TAB POS.

WPS-PLUS draws in the box and removes the select mark.

Using Working Regions

A working region acts like a miniature screen. The cursor cannot move beyond it, and nothing you do inside the working region affects the rest of the diagram.

Use a working region to fit text into an area you select. You can also use a working region to align text on the left as you type.

To define a selected area as a working region:

Press SENT.

WPS-PLUS outlines the working region in bold lines.

To restore the working region as part of the TDE diagram:

Press Gold SENT.

You can move the cursor out of the working region.

Shading

There are three kinds of shading:

- Reverse video
- Bolding
- Underlining

Reverse video characters appear in white spaces if your screen is black, or in black spaces if your screen is white. Bolded characters appear on the screen brighter than other characters.

You can use the three kinds of shading in any combination, and you can use them with lines or with text. You can apply shading to, or remove shading from, an entire area of a diagram. See the section Shading Areas.

To turn on shading:

Press one or more of the shading keys.

- Press UPPER CASE to turn on reverse video.
- Press BOLD to turn on bolding.
- Press UNDER LINE to turn on underlining.

To turn off shading:

Press the appropriate shading key(s) again.

Using Selected Areas

You can select rectangular areas of a diagram and work with them instead of with individual character positions. These areas are called selected areas.

Selecting Areas

You can identify a rectangular area of your diagram as a selected area. Once you identify a selected area, you can:

- Move the area from one place to another in the diagram.
- Copy the area within the diagram, between diagrams, into the WPS-PLUS text editor, or into another document.
- Fill the area with a chosen character.
- Shade the area.
- Join the overwritten lines in an area.
- Erase the area. See the section Deleting Diagrams and Text.
- Draw a box around the area. See the section Drawing Boxes.
- Define the area as a working region. See the section Using Working Regions.

To select an area of the current diagram:

- 1 Move the cursor to one corner of the area you want to select.
- 2 Press SEL.
The select mark appears.
- 3 Move the cursor to the opposite corner of the area you wish to select.

NOTE: The select mark does not appear on the screen if you write over it or use the selected area, but it is still in effect.

To display or temporarily remove the select mark:

Press Gold SEL.

Gold SEL lets you find the selected point if you lose track of it, or remove the select mark if you want to see how the screen looks without it.

Moving Areas

To move a selected area to a new place in the current diagram:

- 1 Select the area you want to move.
- 2 Press CUT.
- 3 Use the arrow keys to move the cursor to the new position.

A copy of the area moves with the cursor.

- 4 Press ENTER.

WPS-PLUS inserts the area where you have moved it.

To keep the original:

Press SHIFT/DEL CHAR any time between pressing CUT and pressing ENTER.

To cancel keeping the original:

Press SHIFT/DEL CHAR again.

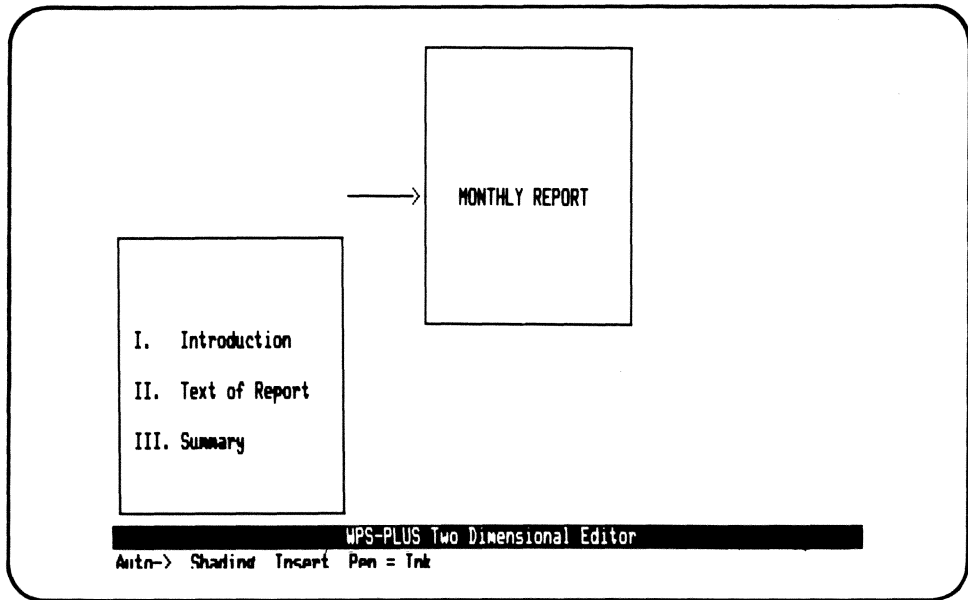
Figure 15-4 shows how you can move a section of a diagram with the Down Arrow key. (Compare with Figure 15-1.)

To overlay the moved copy on the diagram beneath:

Press SHIFT/PASTE any time between pressing CUT and pressing ENTER.

To cancel the overlay:

Press SHIFT/PASTE again.



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Figure 15-4 Moving a Selected Area of a Diagram

Copying Areas Within Diagrams

To copy the selected area within a diagram:

- 1 Select the area you want to copy.
- 2 Press Gold CUT.
- 3 Move the cursor to where you want the copied area.
- 4 Press SHIFT/PASTE. WPS-PLUS places the selected area above, below, before, or after the cursor, depending on how the autodirection is set. See Table 15-6 and the section Autodirection.

OR

Press Gold SHIFT/PASTE.

Spaces in the selected area do not erase occupied spaces in the current diagram. This lets you overlay one image on top of another.

To copy a selected area from one diagram to another:

- 1 Select the area you want to move.
- 2 Press Gold CUT.
- 3 Press Gold TDE to exit the TDE.
- 4 Move the cursor over an existing diagram and press Gold TDE to begin editing the diagram.

OR

Move the cursor to where you want a new diagram and press Gold TDE twice to start the diagram.

- 5 Press SHIFT/PASTE.

WPS-PLUS places the selected area above, below, before, or after the cursor, depending on how the autodirection is set. See Table 15-6 and the section Autodirection.

OR

Press Gold SHIFT/PASTE.

Spaces in the selected area do not erase occupied spaces in the current diagram. This lets you overlay one image on top of another.

When you copy a selected area, WPS-PLUS inserts the copied area according to the autodirection setting. Use Table 15-6 to place the cursor for copying.

Table 15-6 Autodirection

If Autodirection is	Place the cursor
Auto->	Where the upper left corner of the area will be copied.
Auto-∨	Where the upper right corner of the area will be copied.
Auto-<	Where the lower right corner of the area will be copied.
Auto-^	Where the lower left corner of the area will be copied.

Copying Areas into the Text Editor

To copy a selected area from the TDE into the text editor:

- 1 Select the area you want to copy.
- 2 Press Gold CUT.
- 3 Press Gold TDE to exit the TDE.
- 4 Move the cursor to where you want the selected area.
- 5 Press Gold SHIFT/PASTE.

The selected text is inserted at the cursor. You can now edit the picture just as you edit text in a normal WPS-PLUS document.

OR

Press SHIFT/PASTE.

If you use SHIFT/PASTE and not Gold SHIFT/PASTE, be sure the selected area will fit within the margins of the current ruler for the text area that will be receiving the diagram.

For example, if you want to copy the selected area of the diagram into a text area that has a right margin set at 65, be sure the selected area will fit within that margin. Otherwise, the diagram will not be formatted correctly when you copy it.

***NOTE:** When you use Gold PASTE to insert all or part of a TDE diagram in the text editing area, the copied area has a no-wrap ruler. See Chapter 3 for more information about no-wrap rulers.*

Filling in Areas

To fill a selected area with a character:

- 1 Press Gold PARA.
- 2 Press the key for the character you want to use in the area.

You can use any key from the main keyboard, or see Table 15-7 for the keystrokes for special characters.

Shading Areas

You can use the three types of shading to highlight a selected area in one or more ways.

To shade everything in the selected area:

- 1 Turn on the shading you want to use:
 - Press UPPER CASE for reverse video.
 - Press BOLD for bolding.
 - Press UNDER LINE for underlining.
- 2 Press Gold, then UPPER CASE, BOLD, or UNDER LINE.

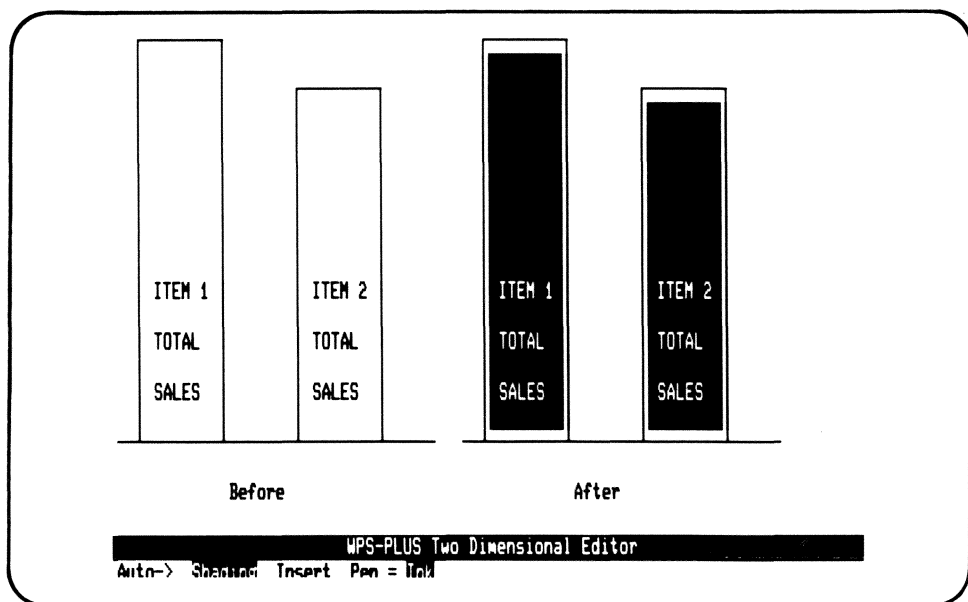
To shade a selected area in more than one way:

- 1 Select the area again.
- 2 Repeat the steps for shading a selected area.

Figure 15-5 shows how you can shade an area of a diagram with reverse video.

To remove shading in the selected area:

- 1 Check the word Shading on the status line to be sure the shading you want to remove is turned off.
- 2 Press Gold and the shading key.



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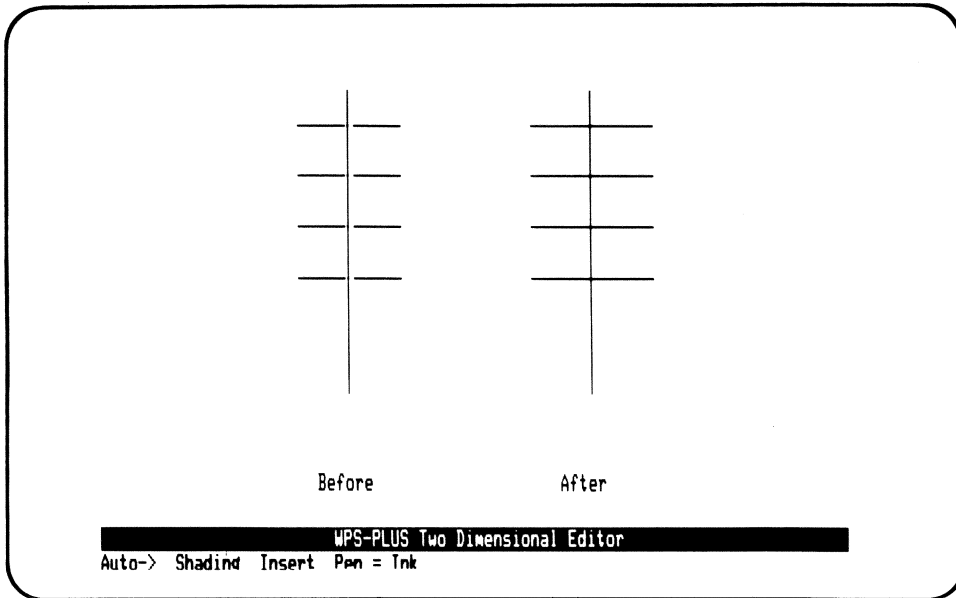
Figure 15-5 Shading an Area

Joining Lines in Areas

Sometimes when lines intersect in a TDE diagram (as when Overlay Ink is loaded in the pen), a gap appears where the lines meet. To join intersecting or overlaid lines in the selected area:

Press Gold TAB POS on the keypad.

See Figure 15-6.



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Figure 15-6 Joining Overlaid Lines

Repeating Functions or Keystrokes

When you edit diagrams, you can have a particular function or keystroke repeat a given number of times. For example, you might want to paste a particular piece of text five times, or draw a line of 80 asterisks.

To repeat a keyboard function or keystroke:

- 1 Press Gold.
- 2 Type the number of times you want to perform the function.
- 3 Press the appropriate key(s).

Special Characters

To display a special character:

- 1 Press PARA.
- 2 Use one of the keystrokes listed in Table 15-7.
The special character appears on the screen.

To load the pen with a special character:

- 1 Press Gold ENTER.
- 2 Use any keystroke listed in Table 15-7.

Table 15-7 lists the special characters you can use in the Two-Dimensional Editor.

Table 15-7 Special Characters

Special Character	Keystrokes
←	RETURN
↑	CTRL/L
→	TAB
↓	ALT/RUB WORD OUT
↕	CTRL/K
.	SEL
⌘	Gold *
⌞	PARA
°	Gold O
◆	Gold ^
≧	Gold >
—	Gold 1

(continued)

Table 15-7 Special Characters (Cont.)

Special Character	Keystrokes
—	ADVANCE
≦	Gold <
—	Gold 5
—	Gold 2
≠	Gold =
π	Gold ”
±	Gold +
⊥	LINE
⊢	WORD
⊕	BOLD
⊞	TAB POS
	ENTER
┌	SENT
└	UNDER LINE
┐	BACK UP
┘	UPPER CASE

You can also display technical characters in the TDE. See Chapter 16.

Using Gold LIBRY and Gold ABBRV

You can use the Gold LIBRY and Gold ABBRV functions to insert stored text in TDE diagrams. However, WPS-PLUS treats the functions differently in the TDE.

To use Gold LIBRY in a TDE diagram:

- 1 Specify the appropriate library document at the Editor Menu.
See Chapter 8 for more information about creating and using library and abbreviation documents.
- 2 Press Gold TDE twice to start a new diagram.
OR
Move the cursor over an existing diagram and press Gold TDE.
- 3 Press Gold LIBRY.
- 4 Enter the short phrase that identifies the text or diagram in your library document.
The text or diagram from the library document is moved to the paste area of the document you are editing.
- 5 Move the cursor to where you want to insert the stored text.
- 6 Press SHIFT/PASTE.
The text or diagram from the library document is inserted at the cursor.

To use Gold ABBRV in a TDE diagram:

- 1 Specify the appropriate abbreviation document at the Editor Menu.
See Chapter 8 for more information about creating and using abbreviation documents.
- 2 Press Gold TDE twice to start a new diagram.
OR
Move the cursor over an existing diagram and press Gold TDE.
- 3 Press Gold ABBRV.
- 4 Enter the two-letter abbreviation that identifies the text or diagram in your abbreviation document.
The text or diagram from the abbreviation document is moved to the paste area of the document you are editing.

- 5 Move the cursor to where you want to insert the stored text.
- 6 Press SHIFT/PASTE.

The text or diagram from the abbreviation document is inserted at the cursor.

Printing Diagrams

WPS-PLUS prints diagrams as part of the document. It does not print the START PICTURE and END PICTURE markers.

The quality of the printed diagram depends on the kind of printer you use. The LA210 printer can print all the features in a diagram except for reverse video. Other printers may leave out highlighting or special characters.

When you print a document, the width of the diagram is controlled by the current text editing ruler in your document. If your TDE diagrams extend farther right than the right margin setting in the text editing ruler, change the right margin as necessary. Any area extending beyond the current right margin will not be printed.

Restrictions

- You cannot edit a diagram while you are text editing.
- You can move the cursor into a diagram, and you can use text editing to search for text or symbols in a diagram. However, you cannot use search-and-replace or global search-and-replace to alter the diagram, and you cannot add, delete, or rename characters.

Technical Character Set

This chapter:

- Describes the Technical Character Set (TCS)
- Tells how to access and use the Technical Character Set Library

The Technical Character Set contains the Greek alphabet, mathematical symbols, and other useful symbols.

Figure 16-1 shows the keys on the PC keyboard used to generate TCS characters.

Hardware Requirements

Because of video limitations of the PC, you cannot display all the TCS characters on your screen. In some cases, you receive a fallback character instead of a technical character. (See Table 16-1.) However, you can still print all the TCS characters on a properly equipped printer, regardless of how they appear on the screen.

To print TCS characters, you must have a printer capable of printing technical characters. See the Software Product Description for more information.

Using the Technical Character Set

To insert a technical character into your document:

- 1 Press ALT/ALT CHAR.
- 2 Press the appropriate Technical Character Set key on the main keyboard. See Figure 16-1.

See Table 16-1 for a description of the technical characters. The table also lists the fallback characters for those technical characters that do not display on your screen.

The Technical Character Set Library

To help users understand the technical characters available, WPS-PLUS offers the Technical Character Set Library, a special abbreviation document containing square root signs, sigmas, integrals, and other symbols you can use to create mathematical and scientific equations or formulas.

To access the TCS Library, you use a special abbreviation document on the fixed disk or the WPS-PLUS DOCMT TRANSFER/CNVT diskette. If you installed WPS-PLUS on a fixed disk, you loaded the TCS abbreviations onto the fixed disk during installation. If you are running WPS-PLUS on a diskette-based system, you need to copy the TCS abbreviation document to your document diskette.

To copy the TCS abbreviation document from the DOCMNT TRANSFER/CNVT diskette to your current document diskette:

- 1 Exit WPS-PLUS by entering EX at the Document Processing Menu.
- 2 Insert the WPS-PLUS SYSTEM diskette in drive A and press any key to end the WPS-PLUS session.

The A> prompt appears on the screen.

- 3 Remove the WPS-PLUS SYSTEM diskette, and insert the WPS-PLUS DOCMNT TRANSFER/CNVT diskette in drive A.
- 4 Insert your document diskette in drive B.
See *WPS-PLUS Installation and Printer Tables* for information about formatting document diskettes.
- 5 At the A> prompt, type:
`COPY A:TCSLIB,WPL B:*,*`
- 6 Press RETURN.
Your PC copies the TCS abbreviation document onto your document diskette.
- 7 Remove the DOCMNT TRANSFER/CNVT diskette, and insert the WPS-PLUS SYSTEM diskette in drive A.
- 8 Enter WPS at the A> prompt to continue your WPS-PLUS session.

Using the Technical Character Set Library

To use the Technical Character Set Library document as an abbreviation document, you should be familiar with the WPS-PLUS Two-Dimensional Editor (TDE). See Chapter 15 for information about using the TDE to create and edit diagrams. See Chapter 8 for more information about creating and using abbreviation documents.

To use the Technical Character Set Library as an abbreviation document:

- 1 If you are using a diskette-based system, copy TCSLIB.WPL from the WPS-PLUS TRANSFER/CNVT diskette to your document diskette.
See the section The Technical Character Set Library.
- 2 Edit TCSLIB.WPL.
OR
Print TCSLIB.WPL so you have a record of the abbreviations and the symbols they represent.
- 3 Read through the document until you find the technical character or symbol you want to copy.

- 4 Note the abbreviation assigned to the technical character or symbol.
- 5 Create a new document or edit an existing document.
- 6 Press Gold MENU to display the Editor Menu.
- 7 Enter AD to move the cursor to the Abbreviation Document field.
- 8 Type _B:TCSLIB.WPL if you are using a diskette-based system.

OR

Type _C:TCSLIB.WPL if you are using a fixed-disk system.

NOTE: On fixed-disk systems, the path name (C:) may be different, depending on how you loaded WPS-PLUS. See WPS-PLUS Installation and Printer Tables for more information.

Also, be sure to include the underscore before the document name. This tells WPS-PLUS that the document is outside your current index.

- 9 Press RETURN.
- 10 Enter OK to return to the WPS-PLUS Editor.
- 11 Press Gold TDE twice to create a new diagram.

OR

Move the cursor over an existing diagram and press Gold TDE once.

- 12 Press Gold ABBRV and enter the two-letter abbreviation for the TCS character or symbol you want.
WPS-PLUS inserts the stored text into the WPS-PLUS paste area.
- 13 Move the cursor to where you want the stored text copied.
- 14 Press SHIFT/PASTE.
WPS-PLUS inserts the stored TCS character or symbol at the cursor.

Using this procedure, you can create a sample standard deviation equation:

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

To create this equation:

- 1 Edit or create a document.
- 2 Specify TCSLIB.WPL as your abbreviation document on the WPS-PLUS Editor Menu.

See Chapter 8 for more information about creating and using abbreviation documents.
- 3 Return to the editor and press Gold TDE twice to start the Two-Dimensional Editor (TDE).

See Chapter 15 for more information about creating and editing TDE diagrams.
- 4 Use the arrow keys to move the cursor to the middle of the screen.
- 5 Press Gold ABBRV, then type 47.

WPS-PLUS searches the Technical Character Set Library for the square root symbol stored under the abbreviation 47. The size of this symbol is 4 rows by 7 columns.

The square root symbol is moved into the WPS-PLUS paste area.
- 6 Press SHIFT/PASTE.

The 4 by 7 square root symbol appears in the center of your screen.
- 7 Move the cursor inside the square root symbol so that it is two lines below the horizontal line of the symbol and two spaces to the right of the vertical line of the symbol.
- 8 Press ALT/ALT CHAR.
- 9 Hold down the shift key and press S.

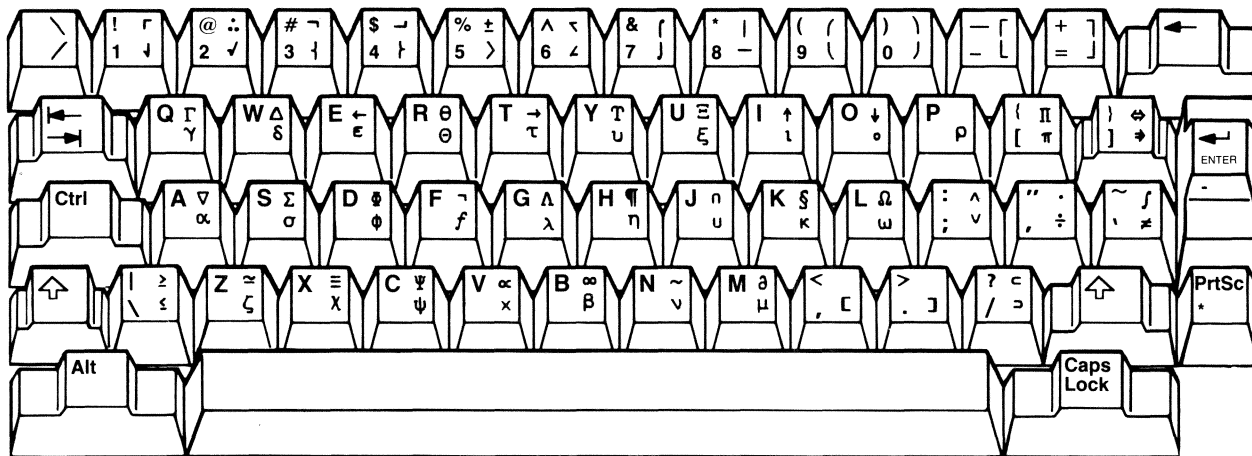
The summation sign appears inside the square root symbol.
- 10 Move the cursor up one space.

- 11 Press Gold ABBRV, then type (2.
WPS-PLUS searches the Technical Character Set Library and moves a large open parenthesis into the paste area.
- 12 Press SHIFT/PASTE to insert the open parenthesis at the cursor.
- 13 Move the cursor down one space and type the equation $x-x$.
- 14 Move the cursor one space above the second x .
- 15 Press PARA Gold 5 on the main keyboard to display the TDE special character that appears above the second x .
See Chapter 15 for more information about TDE special characters.
- 16 Press Gold ABBRV, then type)2.
- 17 Press SHIFT/PASTE.
WPS-PLUS inserts the right parenthesis.
- 18 Type 2.
- 19 Using the TDE Pen, draw a line beneath the equation you have created so far.
See Chapter 15 for information about using the TDE pen.
- 20 Type the equation $n - 1$ beneath the line.
- 21 Press Gold TDE to exit the TDE diagram.

You can now print the equation as a part of your document, or copy the equation elsewhere in your document.

Technical Character Set Description

Table 16-1 lists the TCS characters, their names, the keys used to produce each TCS character, and the fallback characters.



- To display a technical character on your screen:
- 1 Press ALT, then Q.
 - 2 Press the appropriate key on the main keyboard.

Figure 16-1 Technical Character Set Keys on the PC Keyboard

Table 16-1 The Technical Character Set

Use	To Produce	Which Displays	Fallback Character
(Uppercase Greek)			
W	capital delta, triangle	Δ	D
D	capital phi	Φ	F
Q	capital gamma	Γ	G
R	capital theta	Θ	J
G	capital lambda	Λ	L
{	capital pi, product	Π	P
C	capital psi	Ψ	Q
S	capital sigma, summation	Σ	S
L	capital omega, Ohm sign	Ω	W
U	capital xi	Ξ	X
Y	capital upsilon	Υ	Y
(Lowercase Greek)			
a	small alpha	α	a
b	small beta	β	b
x	small chi	χ	c
w	small delta	δ	d
e	small epsilon	ϵ	e
d	small phi	ϕ	f
q	small gamma	γ	g
h	small eta	η	h
i	small iota	ι	i
r	small theta	θ	j
k	small kappa	κ	k
g	small lambda	λ	l
n	small nu	ν	n
[	small pi	π	p
c	small psi	ψ	q
p	small rho	ρ	r
s	small sigma	σ	s

(continued)

Table 16-1 The Technical Character Set (Cont.)

Use	To Produce	Which Displays	Fallback Character
t	small tau	τ	t
l	small omega	ω	w
u	small xi	ξ	x
y	small upsilon	υ	y
x	small zeta	ζ	z
	(Mathematical)		
<	less than or equal	$\leq$	<
\	not equal	$\neq$	=
>	greater than or equal	$\geq$	>
:	integral	$\int$	S
V	variation, proportional to	$\propto$	a
B	infinity	∞	o
,	division, divided by	$\div$	[
A	nabla, del	∇	v
N	is approximate to	$\sim$	$\sim$
Z	similar or equal to	$\simeq$	$\sim$
v	times, cross product	$\times$	x
2	radical	$\sqrt{}$	V
M	partial derivative	∂	a
f	function	f	f
E	left arrow	$\leftarrow$	<
I	upward arrow	$\uparrow$	^
T	right arrow	$\rightarrow$	>
O	downward arrow	$\downarrow$	v
	(Logic)		
@	therefore	$\therefore$	:
}	if and only if	$\Leftrightarrow$	<
]	implies	$\Rightarrow$	=
X	identical to	$\equiv$	=
?	is included in	$\subset$	c
/	includes	$\supset$	>

(continued)

Table 16-1 The Technical Character Set (Cont.)

Use	To Produce	Which Displays	Fallback Character
J	intersection	$\cap$	$\wedge$
j	union	$\cup$	$\vee$
:	logical and	$\wedge$	$\&$
;	logical or	$\vee$	$ $
F	logical not	$\neg$	$\sim$
(Component characters)			
1	left radical	$\sqrt{}$	$\sqrt{}$
!	top left radical	$\neg$	$\neg$
8	horizontal connector	$ $	$\cdot$
&	top integral	$\int$	$($
7	bottom integral	$\int$	$)$
*	vertical connector	$ $	$ $
_ (underscore)	top left square bracket	$[$	$[$
- (hyphen)	bottom left square bracket	$[$	$[$
+	top right square bracket	$]$	$]$
=	bottom right square bracket	$]$	$]$
(	top left parenthesis	$($	$($
9	bottom left parenthesis	$($	$($
)	top right parenthesis	$)$	$)$
0	bottom right parenthesis	$)$	$)$
3	left middle curly brace	$\{$	$\{$
4	right middle curly brace	$\}$	$\}$
^	top left summation	$\sum$	$\sum$
6	bottom left summation	$\sum$	$\sum$
~	top vertical summation connector	$\sum$	$\sum$
`	bottom vertical summation connector	$\sum$	$\sum$
#	top right summation	$\sum$	$\sum$
\$	bottom right summation	$\sum$	$\sum$
5	right middle summation	$\sum$	$\sum$

A

Compose Sequences

This appendix lists the compose sequences that form DEC Multinational Characters in the DEC Supplemental Graphic Set. These compose sequences produce characters that do not appear on some keyboards.

See Chapter 9 for complete information about displaying and printing DEC Multinational Characters.

Table A-1 identifies all possible compose sequence combinations and their decimal codes. The space key is denoted by <sp>.

Unless otherwise noted in the table, the keys pressed after the COMPOSE key may be pressed in either order.

Table A-1 Compose Sequences

Code	Name	Compose Sequences
34	quotation marks	“ <sp>
35	number sign	+ +
39	apostrophe	'<sp>
64	commercial “at” sign	aa or AA
91	left bracket	((
92	backslash	//
93	right bracket	))
94	circumflex	^<sp>
96	grave accent	'<sp>
123	left brace	(-
124	vertical line	/^
125	right brace	)-
126	tilde	~<sp> or -<sp>
161	inverted exclamation mark	!!
162	cent sign	C/ or C or c/ c
163	pound sign	L- or L= or l- or l=
165	yen sign	Y- or Y= or y- or y=
167	section sign	S0 or SO or s0 or so
168	general currency sign	X0 or XO or x0 or xo
169	copyright sign	C0 or CO or c0 or co
170	feminine ordinal indicator	a_ or A_
171	angle quotation mark left	<<
176	degree sign	0^
177	plus/minus sign	+ -
178	superscript 2	2^
179	superscript 3	3^

(continued)

Table A-1 Compose Sequences (Cont.)

Code	Name	Compose Sequences
181	micro sign	/U or /u (in order)
182	paragraph sign, pilcrow	P! or p!
183	middle dot	^
185	superscript 1	1^
186	masculine ordinal indicator	o_ or O_
187	angle quotation mark right	>>
188	fraction one quarter	14 (in order)
189	fraction one half	12 (in order)
191	inverted question mark	??
192	capital A with grave accent	A`
193	capital A with acute accent	A'
194	capital A with circumflex accent	A^
195	capital A with tilde	A~ or A-
196	capital A with umlaut	A"
197	capital A with ring	A*
198	capital AE diphthong	AE (in order)
199	capital C with cedilla	C,
200	capital E with grave accent	E`
201	capital E with acute accent	E'
202	capital E with circumflex accent	E^
203	capital E with umlaut	E"
204	capital I with grave accent	I`
205	capital I with acute accent	I'
206	capital I with circumflex accent	I^
207	capital I with umlaut	I"
209	capital N with tilde	N~ or N-

(continued)

Table A-1 Compose Sequences (Cont.)

Code	Name	Compose Sequences
210	capital O with grave accent	O`
211	capital O with acute accent	O'
212	capital O with circumflex accent	O^
213	capital O with tilde	O~ or O-
214	capital O with umlaut	O"
215	capital OE ligature	OE (in order)
216	capital O with slash	O/
217	capital U with grave accent	U`
218	capital U with acute accent	U'
219	capital U with circumflex accent	U^
220	capital U with umlaut	U"
221	capital Y with umlaut	Y"
223	German small sharp s	ss
224	small a with grave accent	a`
225	small a with acute accent	a'
226	small a with circumflex	a^
227	small a with tilde	a~
228	small a with umlaut	a"
229	small a with ring	a*
230	small a with diphthong	ae (in order)
231	small a with cedilla	c,
232	small e with grave accent	e`
233	small e with acute accent	e'
234	small e with circumflex accent	e^
235	small e with umlaut	e"
236	small i with grave accent	i`

(continued)

Table A-1 Compose Sequences (Cont.)

Code	Name	Compose Sequences
237	small i with acute accent	i'
238	small i with circumflex accent	i^
239	small i with umlaut	i"
241	small n with tilde	n~ or n-
242	small o with grave accent	o'
243	small o with acute accent	o'
244	small o with circumflex accent	o^
245	small o with tilde	o~ or o-
246	small o with umlaut	o"
247	small oe ligature	oe (in order)
248	small o with slash	o/
249	small u with grave accent	u'
250	small u with acute accent	u'
251	small u with circumflex accent	u^
252	small u with umlaut	u"
253	small y with umlaut	y"

B

Summary of WPS-PLUS Editor Functions

Tables B-1 and B-2 list the WPS-PLUS editor functions. Table B-1 lists the Gold key functions and Table B-2 lists the single key functions.

These tables should be used with Figure 1-1, which shows the WPS-PLUS functions on the PC keyboard. If you cannot find a particular function on your keyboard, find the function name in column one. Then find the keys used for that function in column two.

See Appendix C for a list of duplicate WPS-PLUS function keys. The keys listed in Appendix C are additional ways to access the WPS-PLUS functions listed in Tables B-1 and B-2.

Numerals in the second column refer to keypad keys except where noted.

Table B-1 WPS-PLUS Gold Key Functions

Function Name	Key Labels	Description
Gold ABBRV	NUM LOCK =	Copies specified text from an abbreviation document and inserts the text in the current document at the cursor. See Chapter 8.
Gold ADVANCE	NUM LOCK 0	Advances the cursor to the end of the document.
Gold BACK UP	NUM LOCK 1	Moves the cursor to the top of the document.
Gold BOLD	NUM LOCK 6	Removes bolding from text. See Chapter 5.
Gold BOT DOCMT	NUM LOCK B	Moves the cursor rapidly to the bottom of the document.
Gold CENTR	NUM LOCK C	Centers the text to the left of the cursor. See Chapter 5.
Gold CMND	NUM LOCK [	Defines a control block. Press function to begin the control block. Press function again to end the control block. See Chapter 12.
Gold CONT SRCH	NUM LOCK .	Continues search for text specified in Gold SRCH function. See Chapter 6.
Gold CONT SRCH & SEL	NUM LOCK /	Continues search for text specified in Gold SRCH and marks selected phrase with the select mark. See Chapter 6.
Gold CUT	NUM LOCK -	Copies selected text into the paste area without removing the original text. See Chapter 4.
Gold DATE & TIME	NUM LOCK \	Inserts current date and time at the cursor.

(continued)

Table B-1 WPS-PLUS Gold Key Functions (Cont.)

Function Name	Key Labels	Description
Gold DEAD KEY	NUM LOCK D	Combines the character at the cursor with the character to the left. A special symbol appears on the screen. The composite or multinational character appears in the printed version. See Chapter 9.
Gold DEL CHAR	NUM LOCK SHIFT SCROLL LOCK	Restores text erased with DEL CHAR, DEL WORD, RUB CHAR OUT, RUB WORD OUT, Gold RUB SENT, or Gold RUB LINE. Use immediately after the erase operation.
Gold DEL WORD	NUM LOCK SCROLL LOCK	Restores text erased with DEL CHAR, DEL WORD, RUB CHAR OUT, RUB WORD OUT, Gold RUB SENT, or Gold RUB LINE. Use immediately after the erase operation.
Gold Down Arrow	NUM LOCK F8	Same as Gold ADVANCE.
Gold FILE DOCMT	NUM LOCK F	Files the current document. Ends session with all edits saved.
Gold GET DOCMT	NUM LOCK G	Inserts a document you identify into the document you are editing. See Chapter 4.
Gold GLBL REPLC	NUM LOCK ;	Starts a global search-and-replace. See Chapter 6.
Gold H (HELP)	NUM LOCK H	Displays editor functions on the main keyboard and keypad, TDE functions, and the TCS keyboard.
Gold HYPH PULL	NUM LOCK ALT W	Removes hyphenation inserted by HYPH PUSH. See Chapter 7.

(continued)

Table B-1 WPS-PLUS Gold Key Functions (Cont.)

Function Name	Key Labels	Description
Gold Left Arrow	NUM LOCK F9	Moves the cursor to the beginning of the line.
Gold LIBRY	NUM LOCK L	Copies specified text from a library document and inserts the text in the current document at the cursor. See Chapter 8.
Gold MENU	NUM LOCK M	Displays the Editor Menu.
Gold NEW PAGE	NUM LOCK N	Inserts a NEW PAGE mark in the line above the cursor. The mark remains until you delete it. See Chapter 14.
Gold NONBREAKING SPACE	NUM LOCK Space Bar	Inserts a nonbreaking space between words. See Chapter 7.
Gold PAGE	NUM LOCK SHIFT NUM LOCK	Counts down the number of lines in the CT setting and inserts a PAGE MARKER. See Chapter 14.
Gold PAGE MARKER	NUM LOCK P	Inserts a PAGE MARKER in the line above the cursor. See Chapter 14.
Gold PARA	NUM LOCK 5	Wraps text in one or more paragraphs. Converts carriage returns to spaces. See Chapter 1.
Gold PARA MARKER	NUM LOCK RETURN	Inserts a RETURN and indents the cursor to the P in the ruler. Text you type begins a new paragraph. See Chapter 3.
Gold PASTE	NUM LOCK SHIFT –	Copies text, including rulers, from the paste area into the document at the cursor. See Chapter 4.

(continued)

Table B-1 WPS-PLUS Gold Key Functions (Cont.)

Function Name	Key Labels	Description
Gold PRINT HYPH	NUM LOCK –	Creates a breaking hyphen, which is visible on the screen. Shows WPS-PLUS where to break a hyphenated word, if necessary, at the end of a line. See Chapter 7.
SHIFT Gold PRINT HYPH	SHIFT NUM LOCK –	Creates an invisible hyphen, which is visible in view mode. Shows WPS-PLUS where to break a word, if necessary, at the end of a line. See Chapter 7.
Gold QUIT	NUM LOCK K	Ends current editing session and deletes edits made during that session.
Gold REPLC	NUM LOCK ’	Replaces selected text with text in the paste area. See Chapter 6.
Gold Right Arrow	NUM LOCK F10	Moves the cursor to the end of the line.
Gold RUB LINE	NUM LOCK ←	Erases characters left of the cursor to the beginning of a line.
Gold RUB SENT	NUM LOCK ALT E	Erases characters left of the cursor to the beginning of a sentence.
Gold RULER	NUM LOCK R	Displays current ruler settings for viewing or changing. See Chapter 3.
Gold SRCH	NUM LOCK ,	Searches for specified text. See Chapter 6.
Gold STATUS	NUM LOCK Z	Displays a status line showing the page number, line number, and document title.

(continued)

Table B-1 WPS-PLUS Gold Key Functions (Cont.)

Function Name	Key Labels	Description
Gold SUB SCRIPT	NUM LOCK A	Marks the character at the cursor to be printed 1/2 space below the line. See Chapter 10.
Gold SUPER SCRIPT	NUM LOCK Q	Marks the character at the cursor to be printed 1/2 space above the line. See Chapter 10.
Gold SWAP	NUM LOCK ENTER	Exchanges the character the cursor is on with the next character.
Gold TDE	NUM LOCK J	Invokes the Two-Dimensional Editor (TDE). See Chapter 15.
Gold TOP DOCMT	NUM LOCK T	Moves the cursor to the top of the document.
Gold UDK	NUM LOCK U	Invokes a User-Defined Key. See <i>WPS-PLUS on PC</i> .
Gold UNDER LINE	NUM LOCK 9	Removes underlining from selected text. See Chapter 5.
Gold Up Arrow	NUM LOCK F7	Same as Gold BACK UP.
Gold UPPER CASE	NUM LOCK 3	Changes selected uppercase letters to lowercase. See Chapter 5.
Gold VIEW	NUM LOCK V	Displays text with characters that are not otherwise visible. To cancel, press Gold VIEW again. See Chapter 11.

Table B-2 WPS-PLUS Single Key Functions

Function Name	Key Labels	Description
ADVANCE	0	Advances the cursor one space and sets the cursor mode to advance. The distance keys (WORD, SENT, PARA, PAGE, LINE, TAB POS, and ENTER) move the cursor forward. See Chapter 2.
ALT CHAR	ALT Q	Invokes the Technical Character Set. See Chapter 16.
Arrow Keys	F7, F8, F9, F10	Moves the cursor in the direction indicated. Used in documents and on forms.
BACK UP	1	Moves the cursor one space backward and sets the cursor mode to back up. The distance keys (WORD, SENT, PARA, PAGE, LINE, TAB POS, ENTER) move the cursor backward. See Chapter 2.
BOLD	6	Bolds text. See Chapter 5.
CAPS LOCK	CAPS LOCK	Capitalizes text you type. Unlike the SHIFT key, CAPS LOCK affects only the 26 alphabetic keys. Press CAPS LOCK again to release.
COMPOSE	ALT F10	Creates a multinational character. See Chapter 9.
CUT	—	Removes selected text from a document and puts text in the paste area. See Chapter 4.
DEL CHAR	SHIFT SCROLL LOCK	Erases character at the cursor.
DEL WORD	SCROLL LOCK	Erases word at the cursor, including any punctuation or spaces following the word.
ENTER	+	With ADVANCE or BACK UP, moves the cursor to the next or previous right angle bracket (>). Also enters data at a prompt.
EXIT SCREEN	0	Returns you to the previous screen. Used when a menu, form, or prompt is displayed.

(continued)

Table B-2 WPS-PLUS Single Key Functions (Cont.)

Function Name	Key Labels	Description
HYPH PUSH	ALT W	Pushes characters back to the previous line so they precede a hyphen. See Chapter 7.
INTERRUPT	ALT 6 (on main keyboard)	Stops current operation.
LINE	2	With ADVANCE or BACK UP, moves the cursor to the next or preceding line.
NEXT SCREEN	F6	Moves the cursor to the next screen display (24 lines forward). See Chapter 2.
PAGE	SHIFT NUM LOCK	With ADVANCE or BACK UP, moves the cursor to the next or preceding page-end mark.
PARA	5	With ADVANCE or BACK UP, moves the cursor to the beginning of the next or previous paragraph.
PASTE	SHIFT -	Copies text from the paste area into the document at the cursor. See Chapter 4.
PREV SCREEN	F5	Moves the cursor to the previous screen display (24 lines backward). See Chapter 2.
RESUME	ALT 7 (on main keyboard)	Starts the UDK Record Mode. Used to create a UDK while you are using a WPS-PLUS feature. See Chapter 6 in <i>WPS-PLUS on PC</i> .
RETURN	↵	Inserts a carriage return and moves the cursor to the start of the next line. Pressing RETURN twice inserts a blank line, such as between paragraphs.
RUB CHAR OUT	←	Erases character left of the cursor.
RUB WORD OUT	ALT E	Erases word left of the cursor, including any punctuation or spaces following the word.
SEL		Selects text for cutting, highlighting, or other functions. See Chapter 4.

(continued)

Table B-2 WPS-PLUS Single Key Functions (Cont.)

Function Name	Key Labels	Description
SENT	7	With ADVANCE or BACK UP, moves the cursor to the next or preceding sentence.
SHIFT	⇐	Types uppercase letters. Hold SHIFT down while pressing the character key.
Space bar	Space bar	Inserts a space in the document. Text after the cursor is moved to the right.
TAB	␣ →	Moves text right to the next tab position indicated in the ruler.
TAB POS	8	With ADVANCE or BACK UP, moves the cursor to the next or preceding TAB mark.
UNDER LINE	9	Underlines selected text. See Chapter 5.
UPPER CASE	3	Changes selected text to uppercase. See Chapter 5.
WORD	4	With ADVANCE or BACK UP, moves the cursor to the next or preceding word.

C

Duplicate Function Keys on the PC Keyboard

Table C-1 lists additional function keys available on the PC keyboard. You can use the keys listed in Table C-1 to perform some of the functions listed in Table B-1 or B-2.

Numerals in the first column refer to keys on the main keyboard, not the keypad. Keypad keys are indicated by editor function.

Table C-1 Duplicate Function Keys on the PC Keyboard

Key Name(s)	Same as
F1 or SHIFT/SENT	Gold SRCH
F2 or SHIFT/BACK UP	SEL
F3 or SHIFT/ADVANCE	SHIFT/PASTE
F4 or SHIFT/SEL	CUT
ALT 8	Gold QUIT
ALT 9	Gold MENU
ALT 0	Gold FILE DOCMT
ALT R	Gold UDK
ALT T	Gold H
SHIFT/TAB POS	Up Arrow
SHIFT/WORD	Left Arrow
SHIFT/BOLD	Right Arrow
SHIFT/LINE	Down Arrow
SHIFT/UNDER LINE	PREV SCREEN
SHIFT/UPPER CASE	NEXT SCREEN

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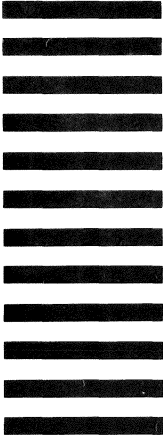
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